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ABSTRACT

Documents announced with VT numbers only in Volume 6, Number 3 (VT 020 110) of "Abstracts of Instructional Materials in Vocational and Technical Education" (AIM) are included in this microfiche set. The microfiche set is arranged in the following sequence: (1) a Vocational Technical (VT) number index to documents in the microfiche collection, (2) the subject and author indexes from AIM, and (3) the full text of documents listed in the VT number index. The texts are filmed continuously in VT number sequence. (DE)

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Microfiche Collection of Clearinghouse Documents

Reported in Abstracts of Instructional Materials in Vocational and Technical Education

(AIM)

Compiled and Indexed by The Center for
Vocational and Technical Education

Vol. 6 No. 3
1973

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VT 020 111

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INTRODUCTION

This collection of microfiche consists of the documents which are announced with VT number only in Abstracts of Instructional Materials in Vocational and Technical Education (AIM), Vol. 6 No. 3, 1973. Microfiche availability is shown in the resume as MF AVAILABLE IN VT-ERIC SET. The documents are grouped in VT number sequence and filmed continously as a microfiche set. These documents are not available on microfiche as individual items, but are obtainable only through purchase of this set, or from agenices who have this set and have the following sections:

1. Vocational Technical (VT) Number Index to Microfiche Collection of Clearinghouse Documents Reported in AIM, Vol. 6 No. 3, 1973.

2. Selected indexes from AIM, Vol. 6 No. 3, 1973.

   a. Subject Index
   b. Author Index

   The documents identified in the indexes with an ERIC Document (ED) number are usually available as separate documents from the ERIC Document Reproduction Service (EDRS). Information about EDRS Service can be found in AIM or Research in Education (RIE).[1] Items not available through EDRS will include a source of availability. The page numbers shown in these indexes refer to the location of the abstracts in AIM Vol. 6 No. 3, 1973.

3. The full text of documents listed in the Vocational Technical (VT) Number Index to Microfiche Collection of Clearinghouse Documents Reported in AIM Vol. 6 No. 3, 1973.

[1] Research in Education is published 12 times a year. The first issue was No. 1, November 1966. Subscription: Domestic $38.00 a year; foreign $47.50. Single copy: Domestic $3.25. Send a check or money order (no stamps) to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

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IDENTIFIERS - EDUCATIONAL AWARENESS; LABOR FORCE PARTICIPATION; *NATIONAL LABOR RELATIONS ACT

ABSTRACT - PREPARED IN THE OFFICE OF THE GENERAL COUNSEL, NATIONAL LABOR RELATIONS BOARD, THIS IS A REVISED EDITION OF A PAMPHLET ORIGINALLY ISSUED IN 1962. PROVIDING A BASIC FRAMEWORK FOR A BETTER UNDERSTANDING OF THE NATIONAL LABOR RELATIONS ACT AND ITS ADMINISTRATION FOR THE LAYMAN, THIS BOOKLET SETS FORTH THE RIGHTS OF EMPLOYEES, THE OBLIGATIONS OF COLLECTIVE BARGAINING AND REPRESENTATION OF EMPLOYEES, UNFAIR LABOR PRACTICES OF EMPLOYERS AND LABOR ORGANIZATIONS, AND THE AUTHORITY FOR ENFORCING THE ACT BY THE NATIONAL LABOR RELATIONS BOARD. A SPECIAL CHART IS INCLUDED THAT ARRANGES SYSTEMATICALLY THE TYPES OF CASES IN WHICH AN EMPLOYER OR A LABOR ORGANIZATION MAY BE INVOLVED UNDER THE ACT. A REGIONAL DIRECTORY WITH A MAP IS PROVIDED FOR THE NATIONAL LABOR RELATIONS BOARD. AN OUTLINE OF MAJOR POINTS IN BOLDFACE TYPE ACCOMPANIES THE READING MATERIALS. (AG)

VT 016 746

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This is a revised edition of a pamphlet originally issued in 1962. It provides a basic framework for a better understanding of the National Labor Relations Act and its administration.

A special chart that arranges systematically the types of cases in which an employer or a labor organization may be involved under the Act, including both unfair labor practice cases and representation election proceedings, appears in the center fold of this booklet at pages 21 and 23.

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A layman's guide to basic law

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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under the

NATIONAL LABOR RELATIONS ACT

Prepared in the Office of the General Counsel
NATIONAL LABOR RELATIONS BOARD

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Foreword

The Regional Offices of the National Labor Relations Board have found that, after more than three decades, there is still a lack of basic information about the National Labor Relations Act. Staff members have expressed a need for a simply stated explanation of the Act to which a layman could be referred for guidance. To meet this demand, the basic law under the Act has been set forth in this pamphlet in a nontechnical way so that those who may be affected by it can better understand what their rights and obligations are.

Any effort to state basic principles of law in a simple way is a challenging and unenviable task. This is especially true about labor law, a relatively complex field of law. Anyone reading this booklet must bear in mind several cautions.

First, it must be emphasized that the Office of the General Counsel does not issue advisory opinions and this material cannot be considered as an official statement of law. It represents the view of the Office of the General Counsel as of the date of publication only. *It is important to note that the law changes and advances.* In fact, it is the duty of the Agency to keep its decisions abreast of changing conditions, yet within the basic statute. Accordingly, with the passage of time no one can rely on these statements as absolute until and unless he has checked to see whether the law may have been changed substantially or specifically.

Furthermore, these are broad general principles only and countless subprinciples and detailed rules are not included. Only by evaluation of specific fact situations in the light of current principles and with the aid of expert advice would a person be in a position to know definitely where his proposed conduct may take him under the statute. No basic primer or text can constitute legal advice in particular fact situations. This effort to improve basic education about the statute should not be considered as such. Many areas of the statute remain untested. Legal advisers and other experts can find the total body of "Board law" reported in other Agency publications.

One other caution . . . This material does not deal with questions arising under other labor laws, but only with the National Labor Relations Act as amended. Laws administered by other

Government agencies, such as the Labor-Management Reporting and Disclosure Act of 1959, the Welfare and Pension Plans Disclosure Act, the Railway Labor Act, the Fair Labor Standards, Walsh-Healey, and Davis-Bacon Acts, Title VII of the Civil Rights Act of 1964, and the Veterans' Preference Act are not treated herein.

Lastly, this material does not reflect the view of the National Labor Relations Board as the adjudicating agency which in the end will decide each case as it comes before it.

It is hoped that with this cautionary note this booklet may be helpful to those in need of a better basic understanding of the National Labor Relations Act.

Revised October 1971

A Layman's Guide to Basic Law Under the National Labor Relations Act

Summary of the Act

It is in the national interest of the United States to maintain full production in its economy. Industrial strife among employees, employers, and labor organizations interferes with full production and is contrary to our national interest. Experience has shown that labor disputes can be lessened if the parties involved recognize the legitimate rights of each in their relations with one another. To establish these rights under law, Congress enacted the National Labor Relations Act. Its purpose is to define and protect the rights of employees and employers, to encourage collective bargaining, and to eliminate certain practices on the part of labor and management that are harmful to the general welfare.

Purpose of the Act

The National Labor Relations Act states and defines the rights of employees to organize and to bargain collectively with their employers through representatives of their own choosing. To ensure that employees can freely choose their own representatives for the purpose of collective bargaining, the Act establishes a procedure by which they can exercise their choice at a secret ballot election conducted by the National Labor Relations Board. Further, to protect the rights of employees and employers, and to prevent labor disputes that would adversely affect the rights of the public, Congress has defined certain practices of employers and unions as unfair labor practices.

What the Act provides

The law is administered and enforced principally by the National Labor Relations Board and the General Counsel acting through 42 regional and other field offices located in major cities in various sections of the country. The General Counsel and his staff in the Regional Offices investigate and prosecute unfair labor practice cases and conduct elections to determine employee representatives. The five-member Board decides cases involving charges of unfair labor practices and determines representation election questions that come to it from the Regional Offices.

How the Act is enforced

The rights of employees, including the rights to self-organization and collective bargaining that are protected by section 7 of the Act, are presented first in this material. The Act's provisions concerning the union shop and the requirements for union-security agreements are covered in the same section which also includes a discussion of the right to strike and the right to picket. The

How this material is organized

obligations of collective bargaining and the Act's provisions for the selection of employee representatives are treated in the following section. Unfair labor practices of employers and of labor organizations are then presented in separate sections. The final section, entitled "How the Act Is Enforced," sets forth the organization of the NLRB; its authority and limitations; its procedures and powers in representation matters, in unfair labor practice cases, and in certain special proceedings under the Act; and the Act's provisions concerning enforcement of the Board's orders.

The Rights of Employees

The Section 7 Rights

The rights of employees are set forth principally in Section 7 of the Act, which provides as follows:

> Sec. 7. Employees shall have the right to self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection, and shall also have the right to refrain from any or all of such activities except to the extent that such right may be affected by an agreement requiring membership in a labor organization as a condition of employment as authorized in section 8(a)(3).

Examples of the rights protected by this section are the following:

Examples of Section 7 rights

- Forming or attempting to form a union among the employees of a company.
- Joining a union whether the union is recognized by the employer or not.
- Assisting a union to organize the employees of an employer.
- Going out on strike to secure better working conditions.
- Refraining from activity in behalf of a union.

The Union Shop

The Act permits, under certain conditions, a union and an employer to make an agreement (called a union-security agreement) requiring all employees to join the union in order to retain their jobs (Section 8(a)(3)). However, the Act does not authorize such agreements in States where they are forbidden by State law (Section 14(b)).

A union-security agreement cannot require that applicants for employment be members of the union in order to be hired. The most that can be required is that all employees in the group covered

by the agreement become members of the union within a certain period of time after the contract takes effect. This "grace period" cannot be less than 30 days except in the building and construction industry. New employees may be required to join the union at the end of a 30-day grace period after they are hired. The Act allows a shorter grace period of 7 full days in the building and construction industry (Section 8(f)). A union-security agreement that provides a shorter grace period than the law allows is invalid, and any employee discharged because of nonmembership in the union is entitled to reinstatement.

Union-security agreements

For a union-security agreement to be valid, it must meet all of the following requirements:

1. The union must not have been assisted or controlled by the employer (see Section 8(a)(2) under "Unfair Labor Practices of Employers" on pages 19–21).
2. The union must be the majority representative of the employees in the appropriate collective-bargaining unit covered by such agreement when made.
3. The union's authority to make such an agreement must not have been revoked within the previous 12 months by the employees in a Board election.
4. The agreement must provide for the appropriate grace period.

Requirements for union-security agreements

Section 8(f) of the Act allows an employer engaged primarily in the building and construction industry to sign a union-security agreement with a union without the union's having been designated as the representative of his employees as otherwise required by the Act. The agreement can be made before he has hired any employees for a project and will apply to them when they are hired. As noted above, new employees may be required to join the union *after* 7 full days. If the agreement is made while employees are on the job, it must allow nonunion employees the same 7-day grace period. As with any other union-security agreement, the union involved must be free from employer assistance or control.

Prehire agreements in the construction industry

Agreements in the building and construction industry can include, as stated in Section 8(f), the following additional provisions:

1. A requirement that the employer notify the union concerning job openings.

2. A provision that gives the union an opportunity to refer qualified applicants for such jobs.
3. Job qualification standards based on training or experience.
4. A provision for priority in hiring based on length of service with the employer, in the industry, or in the particular geographic area. Such hiring provisions may lawfully be included in collective-bargaining agreements which cover employees in other industries as well.

The Right To Strike

Section 7 of the Act states in part, "Employees shall have the right . . . to engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection." Strikes are included among the concerted activities protected for employees by this section. Section 13 also concerns the right to strike. It reads as follows:

> Nothing in this Act, except as specifically provided for herein, shall be construed so as either to interfere with or impede or diminish in any way the right to strike, or to affect the limitations or qualifications on that right.

It is clear from a reading of these two provisions that the law not only guarantees the right of employees to strike, but also places limitations and qualifications on the exercise of that right.

Lawful and unlawful strikes

The lawfulness of a strike may depend on the object, or purpose, of the strike, on its timing, or on the conduct of the strikers. The object, or objects, of a strike and whether the objects are lawful are matters that are not always easy to determine. Such issues often have to be decided by the National Labor Relations Board. The consequences can be severe to striking employees and struck employers, involving as they do questions of reinstatement and backpay.

It must be emphasized that the following is only a brief outline. A detailed analysis of the law concerning strikes, and application of the law to all of the factual situations that can arise in connection with strikes, is beyond the scope of this material. Employees and employers who anticipate being involved in strike action should proceed cautiously and on the basis of competent advice.

Strikes for a lawful object

Employees who strike for a lawful object fall into two classes—"economic strikers" and "unfair labor practice strikers." Both classes continue as employees, but unfair labor practice strikers have greater rights of reinstatement to their jobs.

If the object of a strike is to obtain from the employer some economic concession such as higher wages, shorter hours, or better working conditions, the striking employees are called economic strikers. They retain their status as employees and cannot be discharged, but they can be replaced by their employer. If the employer has hired bona fide permanent replacements who are filling the jobs of the economic strikers when the strikers apply unconditionally to go back to work, the strikers are *not* entitled to reinstatement at that time. However, if the strikers do not obtain regular and substantially equivalent employment, they are entitled to be recalled to jobs for which they are qualified when openings in such jobs occur if they, or their bargaining representative, have made an unconditional request for their reinstatement.

Economic strikers defined

Employees who strike to protest an unfair labor practice committed by their employer are called unfair labor practice strikers. Such strikers can be neither discharged nor permanently replaced. When the strike ends, an unfair labor practice striker, absent serious misconduct on his part, is entitled to have his job back even if an employee hired to do his work has to be discharged.

Unfair labor practice strikers defined

If the Board finds that economic strikers or unfair labor practice strikers who have made an unconditional request for reinstatement have been unlawfully denied reinstatement by their employer, the Board may award such strikers backpay starting at the time they should have been reinstated.

A strike may be unlawful because an object, or purpose, of the strike is unlawful. A strike in support of a union unfair labor practice, or one that would cause an employer to commit an unfair labor practice, may be a strike for an unlawful object. For example, it is an unfair labor practice for an employer to discharge an employee for lack of union membership where there is no union-security agreement in effect (Section 8(a)(3)). A strike to compel an employer to do this would be a strike for an unlawful object and, therefore, an unlawful strike. Strikes of this nature will be discussed in connection with the various unfair labor practices in a later section of this guide.

Strikes unlawful because of purpose

Furthermore, Section 8(b)(4) of the Act prohibits strikes for certain objects even though the objects are not necessarily unlawful if achieved by other means. An example of this would be a strike to compel Employer A to cease doing business with Employer B. It is not unlawful for Employer A

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voluntarily to stop doing business with Employer B, nor is it unlawful for a union merely to request that he do so. It is, however, unlawful for the union to strike with an object of forcing him to do so. These points will be covered in more detail in the explanation of Section 8(b)(4).

In any event, employees who participate in an unlawful strike may be discharged and are not entitled to reinstatement.

Strikes unlawful because of timing —Effect of no-strike contract

A strike that violates a no-strike provision of a contract is unprotected, and the striking employees can be discharged or otherwise disciplined unless the strike is called to protest certain kinds of unfair labor practices committed by the employer. Also, an employee who is subject to a no-strike contract clause can be replaced for refusing to cross a picket line at the plant of another employer unless the contract specifically gives him the right not to cross a picket line. It should be noted that not all refusals to work are considered strikes and thus violations of no-strike provisions. A walkout because of conditions abnormally dangerous to health, such as a defective ventilation system in a spray-painting shop, has been held not to violate a no-strike provision.

Same—Strikes at end of contract period

Section 8(d) provides that where either party desires to terminate or change an existing contract, it must comply with certain conditions. (See page 7.) If these requirements are not met, a strike to terminate or change a contract is unlawful and participating strikers lose their status as employees of the employer engaged in the labor dispute. If the strike was caused by the unfair labor practice of the employer, however, the strikers are classed as unfair labor practice strikers and their status is not affected by failure to follow the required procedure.

Strikes unlawful because of misconduct of strikers

Strikers who engage in serious misconduct in the course of a strike may be refused reinstatement in their former jobs. This applies to both economic strikers and unfair labor practice strikers. Serious misconduct has been held to include, among other things, violence and threats of violence. The U.S. Supreme Court has ruled that a "sitdown" strike, where employees simply stay in the plant and refuse to work, thus depriving the owner of his property, is not protected by the law. Where an unfair labor practice by the employer involved provokes an unfair labor practice strike, this fact may be considered in the determination of whether misconduct by strikers will bar their reinstatement. Examples of serious misconduct that could cause the employees involved to lose their right to rein-

statement are:

- Strikers physically blocking persons from entering or leaving a struck plant.
- Strikers threatening violence against nonstriking employees entering a plant.
- Strikers attacking management representatives.

The Right To Picket

Likewise the right to picket is subject to limitations and qualifications. As with the right to strike, picketing can be prohibited because of its object or its timing, or misconduct on the picket line. In addition, Section 8(b)(7) declares it to be an unfair labor practice for a union to picket for certain objects whether the picketing accompanies a strike or not. This will be covered in more detail in the section on union unfair labor practices.

Collective Bargaining and Representation of Employees

Collective bargaining is one of the keystones of the Act. Section 1 of the Act declares that the policy of the United States is to be carried out "by encouraging the practice and procedure of collective bargaining and by protecting the exercise by workers of full freedom of association, self-organization, and designation of representatives of their own choosing, for the purpose of negotiating the terms and conditions of their employment or other mutual aid or protection."

Collective Bargaining

Collective bargaining is defined in the Act. Section 8(d) requires an employer and the representative of his employees to meet at reasonable times, to confer in good faith about certain matters, and to put into writing any agreement reached if requested by either party. The parties must confer in good faith with respect to wages, hours, and other terms or conditions of employment, the negotiation of an agreement, or any question arising under an agreement.

*Duty to bargain imposed on **both** employer and union*

These obligations are imposed equally on the employer and the representative of his employees. It is an unfair labor practice for either party to refuse to bargain collectively with the other. The obligation does not, however, compel either party to agree to a proposal by the other, nor does it require either party to make a concession to the other.

Section 8(d) provides further that where a collective-bargaining agreement is in effect no party to the contract shall end or change the contract unless the party wishing to end or change it takes the following steps:

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Bargaining steps to end or change a contract

1. He must notify the other party to the contract in writing about the proposed termination or modification 60 days before the date on which the contract is scheduled to expire. If the contract is not scheduled to expire on any particular date, the notice in writing must be served 60 days before the time when it is proposed that the termination or modification take effect.
2. He must offer to meet and confer with the other party for the purpose of negotiating a new contract or a contract containing the proposed changes.
3. He must, within 30 days after the notice to the other party, notify the Federal Mediation and Conciliation Service of the existence of a dispute if no agreement has been reached by that time. He must also notify at the same time any State or Territorial mediation or conciliation agency in the State or Territory where the dispute occurred.
4. He must continue in full force and effect, without resorting to strike or lockout, all the terms and conditions of the existing contract until 60 days after the notice to the other party was given or until the date the contract is scheduled to expire, whichever is later.

When the bargaining steps are not required

The requirements of paragraphs 2, 3, and 4, above, cease to apply if the NLRB issues a certificate showing that the employees' representative who is a party to the contract has been replaced by a different representative or has been voted out by the employees. Neither party is required to discuss or agree to any change of the provisions of the contract if the other party proposes that the change become effective before the provision could be reopened according to the terms of the contract.

As has been pointed out, any employee who engages in a strike within the 60-day period loses his status as an employee of the struck employer and is no longer protected by the Act. This loss of status ends, however, if and when he is reemployed by the same employer.

The Employee Representative

Section 9(a) provides that the employee representatives that have been "designated or selected for the purposes of collective bargaining by the majority of the employees in a unit appropriate for such purposes, shall be the exclusive representatives of all the employees in such unit for the purposes of collective bargaining."

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A unit of employees is a group of two or more employees who share common employment interests and conditions and may reasonably be grouped together for purposes of collective bargaining. The determination of what is an appropriate unit for such purposes is, under the Act, left to the discretion of the NLRB. Section 9(b) states that the Board shall decide in each representation case whether, "in order to assure to employees the fullest freedom in exercising the rights guaranteed by this Act, the unit appropriate for the purposes of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof."

What is an appropriate bargaining unit

This broad discretion is, however, limited by several other provisions of the Act. Section 9(b)(1) provides that the Board shall not approve as appropriate a unit that includes both professional and nonprofessional employees, unless a majority of the professional employees involved vote to be included in the mixed unit.

Section 9(b)(2) provides that the Board shall not hold a proposed craft unit to be inappropriate simply because a different unit was previously approved by the Board, unless a majority of the employees in the proposed craft unit vote against being represented separately.

Section 9(b)(3) prohibits the Board from including plant guards in the same unit with other employees. It also prohibits the Board from certifying a labor organization as the representative of a plant guard unit if the labor organization has members who are nonguard employees or if it is "affiliated directly or indirectly" with an organization that has members who are nonguard employees.

Generally, the appropriateness of a bargaining unit is determined on the basis of the common employment interests of the employees involved. Those who have the same or substantially similar interests concerning wages, hours, and working conditions are grouped together in a bargaining unit. In determining whether a proposed unit is appropriate, the following factors are also considered:

How the appropriateness of a unit is determined

1. Any history of collective bargaining.
2. The desires of the employees concerned.
3. The extent to which the employees are organized. Section 9(c)(5) forbids the Board from giving this factor controlling weight.

Who can or cannot be included in a unit

A unit may cover the employees in one plant of an employer, or it may cover employees in two or more plants of the same employer. In some industries where employers are grouped together in voluntary associations, a unit may include employees of two or more employers in any number of locations. It should be noted that a bargaining unit can include only persons who are "employees" within the meaning of the Act. The Act excludes certain individuals, such as agricultural laborers, independent contractors, and supervisors, from the meaning of "employees." None of these individuals can be included in a bargaining unit established by the Board. In addition, the Board, as a matter of policy, excludes from bargaining units employees in executive positions and employees who act in a confidential capacity to an employer's labor relations officials.

Duties of bargaining representative and employer

Once an employee representative has been designated by a majority of the employees in an appropriate unit, the Act makes that representative the exclusive bargaining agent for all employees in the unit. As exclusive bargaining agent it has a duty to represent equally and fairly all employees in the unit without regard to their union membership or activities. Once a collective-bargaining representative has been designated or selected by his employees, it is illegal for an employer to bargain with individual employees, with a group of employees, or with another employee representative.

Section 9(a) provides that any individual employee or a group of employees shall have the right at any time to present grievances to their employer and to have such grievances adjusted without the intervention of the bargaining representative provided:

1. The adjustment is not inconsistent with the terms of any collective-bargaining agreement then in effect.
2. The bargaining representative has been given the opportunity to be present at such adjustment.

How a Bargaining Representative Is Selected

Although the Act requires that an employer bargain with the representative selected by his employees, it does not require that the representative be selected by any particular procedure so long as the representative is clearly the choice of a majority of the employees. As one of the methods by

which employees can select a bargaining representative the Act provides for the NLRB to conduct representation elections by secret ballot.

The NLRB can conduct such an election only when a petition has been filed requesting one. A petition for certification of representatives can be filed by an employee or a group of employees or any individual or labor organization acting on their behalf, or it can be filed by an employer. If filed by or on behalf of employees, the petition must be supported by a substantial number of employees who wish to be represented for collective bargaining and must state that their employer declines to recognize their representative. If filed by an employer, the petition must allege that one or more individuals or organizations have made a claim for recognition as the exclusive representative of the same group of employees.

Petition for certification of representatives

The Act also contains a provision whereby employees or someone acting on their behalf can file a petition seeking an election to determine whether or not the employees wish to retain the individual or labor organization currently acting as their bargaining representative, whether the representative has been certified or voluntarily recognized by the employer. This is called a decertification election.

Petition for decertification election

Provision is also made for the Board to determine by secret ballot whether the employees covered by a union-shop agreement desire to withdraw the authority of their representative to continue the agreement. This is called a union-shop deauthorization election and can be brought about by the filing of a petition signed by 30 percent or more of the employees covered by the agreement.

Union-shop deauthorization

If you will refer to the "Types of Cases" chart on pages 24 and 25 of this booklet you may find it easier to understand the differences between the six types of petitions that can be filed under the Act.

The same petition form is used for any kind of Board election. When the petition is filed, the NLRB must investigate the petition, hold a hearing if necessary, and direct an election if it finds that a question of representation exists. The purpose of the investigation is to determine, among other things, the following:

Purpose of investigation and hearing

1. Whether the Board has jurisdiction to conduct an election.

2. Whether there is a sufficient showing of employee interest to justify an election.
3. Whether a question of representation exists.
4. Whether the election is sought in an appropriate unit of employees.
5. Whether the representative named in the petition is qualified.
6. Whether there are any barriers to an election in the form of existing contracts or prior elections.

Jurisdiction to conduct an election

The jurisdiction of the NLRB to direct and conduct an election is limited to those enterprises that affect commerce. (This is discussed in greater detail at pages 45–49.) The other matters listed above will be discussed in turn.

Expedited elections under Section 8(b)(7)(C)

First, however, it should be noted that Section 8(b)(7)(C) provides, among other things, that when a petition is filed within a reasonable period, not to exceed 30 days, after the commencement of recognitional or organizational picketing, the NLRB shall "forthwith" order an election and certify the results. This is so if the picketing is not within the protection of the second proviso to Section 8(b)(7)(C). Where an election under Section 8(b)(7)(C) is appropriate, neither a hearing nor a showing of interest is required, and the election is scheduled sooner than under the ordinary procedure.

Showing of interest required

Regarding the showing of interest, it is the practice to require that a petitioner requesting an election for either certification of representatives or decertification show that at least 30 percent of the employees favor an election. The Act also requires that a petition for a union-shop deauthorization election be filed by 30 percent or more of the employees in the unit covered by the agreement for the NLRB to conduct an election for that purpose. The showing of interest must be exclusively by employees who are in the appropriate bargaining unit in which an election is sought.

Existence of question of representation

Section 9(c)(1) authorizes the NLRB to direct an election and certify the results thereof, provided the record shows that a question of representation exists. Petitions for certification of representatives present a question of representation if, among other things, they are based on a demand for recognition by the employee representative and a denial of recognition by the employer. The demand for recognition need not be made in any particular form; in fact, the filing of a petition by the representative itself is considered to be a demand for recognition. The NLRB has held that even a representative that is

currently recognized by the employer can file a petition for certification and that such petition presents a question of representation provided the representative has not previously been certified.

A question of representation is also raised by a decertification petition which challenges the representative status of a bargaining agent previously certified or currently recognized by the employer. However, a decertification petition filed by a supervisor does not raise a valid question of representation and must be dismissed.

Section 2(4) of the Act provides that the employee representative for collective bargaining can be "any individual or labor organization." A supervisor or any other management representative may not be an employee representative. It is NLRB policy to direct an election and to issue a certification unless the proposed bargaining agent fails to qualify as a bona fide representative of the employees. In determining a union's qualifications as bargaining agent, it is the union's willingness to represent the employees rather than its constitution and bylaws that is the controlling factor. The NLRB's power to certify a labor organization as bargaining representative is limited by Section 9(b)(3) which prohibits certification of a union as the representative of a unit of plant guards if the union "admits to membership, or is affiliated directly or indirectly with an organization which admits to membership, employees other than guards."

Who can qualify as bargaining representative

The NLRB has established the policy of not directing an election among employees presently covered by a valid collective-bargaining agreement except in accordance with certain rules. These rules, followed in determining whether or not an existing collective-bargaining contract will bar an election, are called the NLRB contract-bar rules. Not every contract will bar an election. Examples of contracts that would *not* bar an election are:

Bars to Election

Existing collective-bargaining contract

- The contract is not in writing, or is not signed.
- The contract has not been ratified by the members of the union, if such is expressly required.
- The contract does not contain substantial terms or conditions of employment sufficient to stabilize the bargaining relationship.

- The contract can be terminated by either party at any time for any reason.
- The contract contains a clearly illegal union-security clause.
- The bargaining unit is not appropriate.
- The union that entered the contract with the employer is no longer in existence or is unable or unwilling to represent the employees.
- The contract discriminates between employees on racial grounds.
- The contracting union is involved in a basic internal conflict with resulting unstabilizing confusion about the identity of the union.
- The employer's operations have changed substantially since the contract was executed.

Time provisions

Under the NLRB rules a valid contract for a fixed period of 3 years or less will bar an election for the period covered by the contract. A contract for a fixed period of more than 3 years will bar an election sought by a contracting party during the life of the contract, but will act as a bar to an election sought by an outside party for only 3 years following its effective date. A contract of no fixed period will not act as a bar at all.

When a petition can be filed if there is an existing contract

If there is no existing contract, a petition can bring about an election if it is filed before the day a contract is signed. If the petition is filed on the same day the contract is signed, the contract bars an election. Once the contract becomes effective as a bar to an election, no petition will be accepted until near the end of the period during which the contract is effective as a bar. Petitions filed not more than 90 days but over 60 days before the end of the contract-bar period will be accepted and can bring about an election. Of course, a petition can be filed after the contract expires. However, the last 60 days of the contract-bar period is called an "insulated" period. During this time the parties to the existing contract are free to negotiate a new contract or to agree to extend the old one. If they reach agreement in this period, petitions will not be accepted until 90 days before the end of the new contract-bar period.

Effect of certification

In addition to the contract-bar rules, the NLRB has established a rule that when a representative has been certified by the Board, the certification will ordinarily be binding for at least 1 year and a

petition filed before the end of the certification year will be dismissed. In cases where the certified representative and the employer enter a valid collective-bargaining contract during the year, the contract becomes controlling, and whether a petition for an election can be filed is determined by the Board's contract-bar rules.

Effect of prior election

Section 9(c)(3) prohibits the holding of an election in any collective-bargaining unit or subdivision thereof in which a valid election has been held during the preceding 12-month period. A new election may be held, however, in a larger unit, but not in the same unit or subdivision in which the previous election was held. For example, if all of the production and maintenance employees in Company A, including draftsmen in the company engineering office, are included in a collective-bargaining unit, an election among all the employees in the unit would bar another election among all the employees in the unit for 12 months. Similarly, an election among the draftsmen only would bar another election among the draftsmen for 12 months. However, an election among the draftsmen would not bar a later election during the 12-month period among all the production employees including the draftsmen.

When a petition can be filed if there has been a prior election

It is the Board's interpretation that Section 9(c)(3) prohibits only the holding of an election during the 12-month period, but does not prohibit the filing of a petition. Accordingly, the NLRB will accept a petition filed not more than 60 days before the end of the 12-month period. The election cannot be held, of course, until after the 12-month period. If an election is held and a representative certified, that certification is binding for 1 year and a petition for another election in the same unit will be dismissed if it is filed during the 1-year period after the certification. If an election is held and no representative is certified, the election bars another election for 12 months. A petition for another election in the same unit can be filed not more than 60 days before the end of the 12-month period and the election can be held after the 12-month period expires.

The Representation Election

Section 9(c)(1) provides that if a question of representation exists, the NLRB must make its determination by means of a secret ballot election. In a representation election employees are given a choice of one or more bargaining representatives or no representative at all. To be certified as the

bargaining representative, an individual or a labor organization must receive a majority of the valid votes cast.

Consent-election agreements

An election may be held by agreement between the employer and the individual or labor organization claiming to represent the employees. In such an agreement the parties would state the time and place agreed on, the choices to be included on the ballot, and a method to determine who is eligible to vote. They would also authorize the NLRB Regional Director to conduct the election.

Who determines election matters

If the parties are unable to reach an agreement, the Act authorizes the NLRB to order an election after a hearing. The Act also authorizes the Board to delegate to its Regional Directors the determination on matters concerning elections. Under this delegation of authority the Regional Directors can determine the appropriateness of the unit, direct an election, and certify the outcome. Upon the request of an interested party, the Board may review the action of a Regional Director, but such review does not stop the election process unless the Board so orders. The election details are left to the Regional Director. Such matters as who may vote, when the election will be held, and what standards of conduct will be imposed on the parties are decided in accordance with the Board's rules and its decisions.

Who may vote in a representation election

To be entitled to vote, an employee must have worked in the unit during the eligibility period set by the Board and must be employed in the unit on the date of the election. Generally, the eligibility period is the employer's payroll period just before the date on which the election was directed. This requirement does not apply, however, to employees who are ill, on vacation, or temporarily laid off, or to employees in military service who appear in person at the polls. The NLRB rules take into consideration the fact that employment is typically irregular in certain industries. In such industries eligibility to vote is determined according to formulas designed to permit all employees who have a substantial continuing interest in their employment conditions to vote. Examples of these formulas, which differ from case to case, are:

- In one case, employees of a construction company were allowed to vote if they worked for the employer at least 65 days during the year before the "eligibility date" for the election.

- In another case longshoremen who worked at least 700 hours during a specified contract year, and at least 20 hours in each full month between the end of that year and the date on which the election was directed, were allowed to vote.
- Radio and television talent employees and musicians in the television film, motion picture, and phonograph recording industries have been held eligible to vote if they worked in the unit 2 or more days during the year before the date on which the election was directed.

When strikers may be allowed to vote

Section 9(c)(3) provides that economic strikers who have been replaced by bona fide permanent employees may be entitled to vote in "any election conducted within 12 months after the commencement of the strike." The permanent replacements are also eligible to vote at the same time. As a general proposition a striker is considered to be an economic striker unless he is found by the NLRB to be on strike over unfair labor practices of the employer. Whether the economic striker is eligible to vote or not is determined on the facts of each case.

When elections are held

Ordinarily, elections are held within 30 days after they are directed. Seasonal drops in employment or changes in operations that would prevent a normal work force from being present may cause a different date to be set. It is NLRB practice to postpone an election because of unfair labor practice charges except that, in certain cases, the Board will proceed to the election if the charging party so requests. Also, if a Regional Director dismisses the unfair labor practice charges, an election will not be postponed even though an appeal is taken to the General Counsel.

Conduct of elections

NLRB elections are conducted in accordance with strict standards designed to give the employee-voters an opportunity to freely indicate whether they wish to be represented for purposes of collective bargaining. Election details, such as time, place, and notice of an election, are left largely to the Regional Director who usually obtains the agreement of the parties on these maters. Any party to an election who believes that the Board election standards were not met may, within 5 days after the tally of ballots has been furnished, file objections to the election with the Regional Director under whose supervision the election was held. The Regional Director's rulings on these objections may be appealed

to the Board for decision except in the case of elections that are held by consent of the parties in which case the Regional Director's rulings are final.

An election will be set aside if it was accompanied by conduct that the NLRB considers created an atmosphere of confusion or fear of reprisals and thus interfered with the employees' freedom of choice. In any particular case the NLRB does not attempt to determine whether the conduct actually interfered with the employees' expression of free choice, but rather asks whether the conduct tended to do so. If it is reasonable to believe that the conduct would tend to interfere with the free expression of the employees' choice, the election may be set-aside. Examples of conduct the Board considers to interfere with employee free choice are:

- Threats of loss of jobs or benefits by an Employer or a Union to influence the votes or union activities of employees.
- Misstatements of important facts in the election campaign by an Employer or a Union where the other party does not have a fair chance to reply.
- An Employer's firing employees to discourage or encourage their union activities or a Union's causing an Employer to take such action.
- An Employer's or a Union's making campaign speeches to assembled groups of employees on company time within the 24-hour period before the election.
- The incitement of racial or religious prejudice by inflammatory campaign appeals made by either an Employer or a Union.
- Threats or the use of physical force or violence against employees by an Employer or a Union to influence their votes.
- The occurrence of extensive violence or trouble or widespread fear of job losses which prevents the holding of a fair election, whether or not caused by an Employer or a Union.

Unfair Labor Practices of Employers

The unfair labor practices of employers are listed in Section 8(a) of the Act; those of labor organizations in Section 8(b). Section 8(e) lists an unfair labor practice that can be committed only by an employer and a labor organization acting together. The "Types of Cases" chart (reproduced on the center facing pages of this pamphlet) may be helpful in getting to know the relationship between the various unfair labor practice sections of the Act.

Section 8(a)(1)—Interference with Section 7 Rights

Section 8(a)(1) forbids an employer "to interfere with, restrain, or coerce employees in the exercise of the rights guaranteed in section 7." Any prohibited interference by an employer with the rights of employees to organize, to form, join, or assist a labor organization, to bargain collectively, or to refrain from any of these activities, constitutes a violation of this section. This is a broad prohibition on employer interference, and an employer violates this section whenever he commits any of the other employer unfair labor practices. In consequence, whenever a violation of Section 8(a)(2), (3), (4), or (5) is committed, a violation of Section 8(a)(1) is also found. This is called a "derivative violation" of Section 8(a)(1.)

Employer conduct may of course independently violate Section 8(a)(1). Examples of such independent violations are:

Examples of violations of Section 8(a)(1)

- Threatening employees with loss of jobs or benefits if they should join or vote for a union.
- Threatening to close down the plant if a union should be organized in it.
- Questioning employees about their union activities or membership in such circumstances as will tend to restrain or coerce the employees.
- Spying on union gatherings, or pretending to spy.
- Granting wage increases deliberately timed to discourage employees from forming or joining a union.

Section 8(a)(2)—Domination or Illegal Assistance and Support of a Labor Organization

Section 8(a)(2) makes it unlawful for an employer "to dominate or interfere with the formation or administration of any labor organization or contribute financial or other support to it." This section not only outlaws "company unions" that are dominated by the employer, but also forbids an

employer to contribute money to a union he favors or to give it improper advantages that are denied to rival unions.

Domination

A labor organization is considered dominated within the meaning of this section if the employer has interfered with its formation and has assisted and supported its operation and activities to such an extent that it must be looked at as the employer's creation instead of the true bargaining representative of the employees. Such domination is the result of a combination of factors and has been found to exist where there is not only the factor of the employer getting the organization started, but also such other factors as the employer deciding how the organization will be set up and what it will do, or representatives of management actually taking part in the meetings and activities of the organization and trying to influence its actions and policies.

Illegal assistance and support

Interference that is less than complete domination is found where an employer tries to help a union that he favors by various kinds of conduct, such as giving the favored union improper privileges that are denied to other unions competing to organize the employees, or recognizing a favored union when another union has raised a real representation claim concerning the employees involved. Financial support of unions violates the noninterference provision of this section whether it is a direct payment to the assisted union or indirect financial aid.

Examples of violations of Section 8(a)(2)

An employer violates Section 8(a)(2) by:

- Taking an active part in organizing a union or a committee to represent employees.
- Bringing pressure on employees to join a union, except in the enforcement of a lawful union-security agreement.
- Allowing one of several unions that are competing to represent employees to solicit on company premises during working hours and denying other unions the same privilege.
- Soliciting and obtaining from employees and applicants for employment, during the hiring procedure, applications for union membership and signed authorizations for the checkoff of union dues.

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In remedying such unfair labor practices, the NLRB distinguishes between domination of a labor organization and conduct which amounts to no more than illegal assistance. When a union is found to be dominated by an employer, the Board has announced it will order the organization completely disestablished as a representative of employees. But, if the organization is found only to have been supported by employer assistance amounting to less than domination, the Board usually orders the employer to stop such support and to withhold recognition from the organization until such time as it has been certified by the Board as a bona fide representative of employees.

Remedy in cases of domination differs from that in cases of illegal assistance and support

It should be noted in connection with the last example, above, that Section 8(a)(2) provides that an employer may permit employees to confer with him on union business during working hours without loss of pay. This means that both the employee and the union representative who goes with him to discuss a grievance with the employer during working hours may do so without loss of pay.

When an employer can pay employees for union activity during working hours

Section 8(a)(3)—Discrimination Against Employees

Section 8(a)(3) makes it an unfair labor practice for an employer to discriminate against employees "in regard to hire or tenure of employment or any term or condition of employment" for the purpose of encouraging or discouraging membership in a labor organization. In general, the Act makes it illegal for an employer to discriminate in employment because of an employee's union or other group activity within the protection of the Act. A banding together of employees, even in the absence of a formal organization, may constitute a labor organization for purposes of Section 8(a)(3). It also prohibits discrimination because an employee has refrained from taking part in such union or group activity except where a valid union-shop agreement is in effect. Discrimination within the meaning of the Act would include such action as refusing to hire, discharging, demoting, assigning to a less desirable shift or job, or withholding benefits.

As previously noted, Section 8(a)(3) provides that an employee may be discharged for failing to pay the required union initiation fees and dues uniformly required by the exclusive bargaining representative under a lawful union-shop contract. The section provides further, however, that no employer can justify any discriminatory action against an employee for nonmembership in a union if he has reason to believe that membership in the union was not open to the employee on the same

The union-shop exception to Section 8(a)(3)

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terms and conditions that apply to others, or if he has reason to believe that the employee was denied membership in the union for some reason other than failure to pay regular dues and initiation fees.

Even where there is a valid union-security agreement in effect, an employer may not himself pay the union the dues and fees owed by his employees. He may, however, deduct these amounts from the wages of his employees and forward them to the union for each employee who has *voluntarily* signed a dues "checkoff" authorization. Such checkoff authorization may be made irrevocable for no more than a year. But employees may revoke their checkoff authorization after a Board-conducted election in which the union's authority to maintain a union-security agreement has been withdrawn.

The Act does not limit employer's right to discharge for economic reasons

This section does not limit an employer's right to discharge, transfer, or lay off an employee for genuine economic reasons or for such good cause as disobedience or bad work. This right applies equally to employees who are active in support of a union and to those who are not. However, the fact that a lawful reason for the discharge or discipline of an employee may exist does not entitle an employer to discharge or discipline him when the true reason is the employee's union or other activities protected by the law.

An employer who is engaged in good-faith bargaining with a union may lock out the represented employees, sometimes even before impasse is reached in the negotiations, if he does so to further his position in bargaining. But a bargaining lockout may be unlawful if the employer continues his operations during the lockout by hiring replacements for the employees locked out or if the employer is at that time unlawfully refusing to bargain or is bargaining in bad faith. It is also unlawful if the employer's purpose in locking out his employees is to discourage them in their union loyalties and activities, that is, if he is motivated by hostility toward the union. Thus, a lockout to defeat a union's efforts to organize his employees would violate the Act, as would the lockout of only those of his employees who are members of the union. On the other hand, lockouts are lawful which are intended to prevent any unusual losses or safety hazards which would be caused by an anticipated "quickie"

strike. And a whipsaw strike against one employer engaged in multiemployer bargaining justifies a lockout by any of the other employers who are party to the bargaining.

Examples of violations of Section 8(a)(3)

Examples of illegal discrimination under Section 8(a)(3) include:

- Discharging an employee because he urged other employees to join a union.
- Refusing to reinstate an employee when a job he is qualified for is open because he took part in a union's lawful strike.
- Granting of "superseniority" to those hired to replace employees engaged in a lawful strike.
- Demoting an employee because he circulated a union petition among other employees asking the employer for an increase in pay.
- Discontinuing an operation at one plant and discharging the employees involved followed by opening the same operation at another plant with new employees because the employees at the first plant joined a union.
- Refusing to hire a qualified applicant for a job because he belongs to a union. It would also be a violation if the qualified applicant were refused employment because he did not belong to a union, or because he belonged to one union rather than another.

Section 8(a)(4)—Discrimination for NLRB Activity

Section 8(a)(4) makes it an unfair labor practice for an employer "to discharge or otherwise discriminate against an employee because he has filed charges or given testimony under this Act." This provision guards the right of employees to seek the protection of the Act by using the processes of the NLRB. Like the previous section, it forbids an employer to discharge, lay off, or engage in other forms of discrimination in working conditions against employees who have filed charges with the

TYPES OF

1. CHARGES OF UNFAIR LABOR PRACTICES (C CASES)

Charge Against Employer	Charge Against Labor Organization		
Section of the Act CA	*Section of the Act* CB	*Section of the Act* CC	*Section of the Act* CD
8(a)(1) To interfere with, restrain, or coerce employees in exercise of their rights under Section 7 (to join or assist a labor organization or to refrain). *8(a)(2)* To dominate or interfere with the formation or administration of a labor organization or contribute financial or other support to it. *8(a)(3)* By discrimination in regard to hire or tenure of employment or any term or condition of employment to encourage or discourage membership in any labor organization. *8(a)(4)* To discharge or otherwise discriminate against an employee because he has given testimony under the Act. *8(a)(5)* To refuse to bargain collectively with representatives of his employees.	*8(b)(1)(A)* To restrain or coerce employees in exercise of their rights under Section 7 (to join or assist a labor organization or to refrain). *8(b)(1)(B)* To restrain or coerce an employer in the selection of his representatives for collective bargaining or adjustment of grievances. *8(b)(2)* To cause or attempt to cause an employer to discriminate against an employee. *8(b)(3)* To refuse to bargain collectively with employer. *8(b)(5)* To require of employees the payment of excessive or discriminatory fees for membership. *8(b)(6)* To cause or attempt to cause an employer to pay or agree to pay money or other thing of value for services which are not performed or not to be performed.	*8(b)(4)(i)* To engage in, or induce or encourage any individual employed by any person engaged in commerce or in an industry affecting commerce, to engage in a strike, work stoppage, or boycott, or *(ii)* to threaten, coerce, or restrain any person engaged in commerce or in an industry affecting commerce, where in either case an object is: (A) To force or require any employer or self-employed person to join any labor or employer organization or to enter into any agreement prohibited by Sec. 8(e). (B) To force or require any person to cease using, selling, handling, transporting, or otherwise dealing in the products of any other producer, processor, or manufacturer, or to cease doing business with any other person, or force or require any other employer to recognize or bargain with a labor organization as the representative of his employees unless such labor organization has been so certified. (C) To force or require any employer to recognize or bargain with a particular labor organization as the representative of his employees if another labor organization has been certified as the representative.	(D) To force or require any employer to assign particular work to employees in a particular labor organization or in a particular trade, craft, or class rather than to employees in another trade, craft, or class, unless such employer is failing to conform to an appropriate Board order or certification.

CASES

		2. PETITIONS FOR CERTIFCATION OR DECERTIFICATION OF REPRESENTATIVES (R CASES)	3. OTHER PETITIONS
	Charge Against Labor Organization and Employer	**By or in Behalf of Employees**	**By or in Behalf of Employees**
Section of the Act **CP** *8(b)(7)* To picket, cause, or threaten the picketing of any employer where an object is to force or require an employer to recognize or bargain with a labor organization as the representative of his employees, or to force or require the employees of an employer to select such labor organization as their collective-bargaining representative, unless such labor organization is currently certified as the representative of such employees: (A) where the employer has lawfully recognized any other labor organization and a question concerning representation may not appropriately be raised under Section 9(c), (B) where within the preceding 12 months a valid election under Section 9(c) has been conducted, or (C) where picketing has been conducted without a petition under 9(c) being filed within a reasonable period of time not to exceed 30 days from the commencement of the picketing; except where the picketing is for the purpose of truthfully advising the public (including consumers) that an employer does not employ members of, or have a contract with, a labor organization, and it does not have an effect of interference with deliveries or services.	*Section of the Act* **CE** *8(e)* To enter into any contract or agreement (any labor organization and any employer) whereby such employer ceases or refrains or agrees to cease or refrain from handling or dealing in any product of any other employer, or to cease doing business with any other person.	*Section of the Act* **RC** *9(c)(1)(A)(i)* Alleging that a substantial number of employees wish to be represented for collective bargaining and their employer declines to recognize their representative.* *Section of the Act* **RD** *9(c)(1)(A)(ii)* Alleging that a substantial number of employees assert that the certified or currently recognized bargaining representative is no longer their representative.* **By an Employer** *Section of the Act* **RM** *9(c)(1)(B)* Alleging that one or more claims for recognition as exclusive bargaining representative have been received by the employer.* *If an 8(b)(7) charge has been filed involving the same employer, these statements in RC, RD, and RM petitions are not required.	*Section of the Act* **UD** *9(e)(1)* Alleging that employees (30 percent or more of an appropriate unit) wish to rescind an existing union-security agreement. **By a Labor Organization or an Employer** *Board Rules* **UC** *Subpart C* Seeking clasification of an existing bargaining unit. *Board Rules* **AC** *Subpart C* Seeking amendment of an outstanding certification of bargaining representative.

Charges filed with the National Labor Relations Board are letter-coded and numbered. Unfair labor practice charges are classified as "C" cases and petitions for certification or decertification of representatives as "R" cases. This chart indicates the letter codes used for "C" cases, at left, and "R" cases, above, and also presents a summary of each section involved.

NLRB, given affidavits to NLRB investigators, or testified at an NLRB hearing. Violations of this section are in most cases also violations of Section 8(a)(3).

Examples of violations of Section 8(a)(4)

Examples of violations of Section 8(a)(4) are:

- Refusing to reinstate an employee when a job he is otherwise qualified for is open because he filed charges with the NLRB claiming his layoff was based on union activity.
- Demoting an employee because he testified at an NLRB hearing.

Section 8(a)(5)—Refusal To Bargain in Good Faith

Section 8(a)(5) makes it illegal for an employer to refuse to bargain in good faith about wages, hours, and other conditions of employment with the representative selected by a majority of the employees in a unit appropriate for collective bargaining. A bargaining representative which seeks to enforce its right concerning an employer under this section must show that it has been designated by a majority of the employees, that the unit is appropriate, and that there has been both a demand that the employer bargain and a refusal by the employer to do so.

Required subjects of bargaining

The duty to bargain covers all matters concerning rates of pay, wages, hours of employment, or other conditions of employment. These are called "mandatory" subjects of bargaining about which the employer, as well as the employees' representative, must bargain in good faith, although the law does not require "either party to agree to a proposal or require the making of a concession." These mandatory subjects of bargaining include but are not limited to such matters as pensions for present and retired employees, bonuses, group insurance, grievance procedure, safety practices, seniority, procedures for discharge, layoff, recall, or discipline, and the union shop. On "nonmandatory" subjects, that is, matters that are lawful but not related to "wages, hours, and other conditions of employment," the parties are free to bargain and to agree, but neither party may insist on bargaining on such subjects over the objection of the other party.

Duty to bargain defined

An employer who is required to bargain under this section must, as stated in Section 8(d), "meet at reasonable times and confer in good faith with respect to wages, hours, and other terms and conditions of employment, or the negotiation of an agreement, or any question arising thereunder, and the execution of a written contract incorporating any agreement reached if requested by either party."

An employer, therefore, will be found to have violated Section 8(a)(5) if his conduct in bargaining, viewed in its entirety, indicates that the employer did not negotiate with a good-faith intention to reach agreement. However, the employer's good faith is not at issue where his conduct itself constitutes an out-and-out refusal to bargain on a mandatory subject. For example, it is a violation for an employer, regardless of his good faith, to refuse to bargain about a subject which he believes is not a mandatory subject of bargaining, when in fact it is.

What constitutes a violation of Section 8(a)(5)

The duty of an employer to meet and confer with the representative of his employees includes the duty to deal with whoever is designated by the employees' representative to carry on negotiations. An employer may not dictate to a union its selection of agents or representatives and the employer must, in general, recognize the designated agent.

Duty to meet and confer

The employer's duty to bargain includes the duty to supply upon request information that is "relevant and necessary" to allow the employees' representative to bargain intelligently and effectively with respect to wages, hours, and other conditions of employment.

Duty to supply information

Where there is a history of bargaining between a union and a number of employers acting jointly, the employees who are thus represented constitute a multiemployer bargaining unit. Once such a unit has been established, any of the participating employers—or the union—may retire from this multiemployer bargaining relationship only by mutual assent or by a timely submitted withdrawal. Withdrawal is considered timely if unequivocal notice of the withdrawal is given near the termination of a collective-bargaining agreement but before bargaining begins on the next agreement. However, if the union agrees, an employer may also withdraw from a multiemployer unit and sign an individual contract with the union where there has been a breakdown in the multiemployer negotiations leading to an impasse and a resultant strike.

Multiemployer bargaining

Finally, the duty of an employer to bargain includes the duty to refrain from unilateral action, that is, taking action on his own with respect to matters concerning which he is required to bargain, and from making changes in terms and conditions of employment without consulting the employees' representative.

Duty to refrain from unilateral action

Duty of successor employers

An employer who purchases or otherwise acquires the operations of another may be obligated to recognize and bargain with the union which represented the employees before the business was transferred. And, in some circumstances, if that union had a collective-bargaining agreement with the original employer, the purchasing employer or the union may each require the other to honor that agreement. In general, these bargaining obligations exist—and the purchaser is termed a successor employer—where there is a substantial continuity in the employing enterprise despite the sale and transfer of the business. Whether the purchaser is a successor employer is dependent on several factors, including the number of employees taken over by the purchasing employer, the similarity in operations and product of the two employers, the manner in which the purchaser integrates the purchased operations into his other operations, and the character of the bargaining relationship and agreement between the union and the original employer.

Examples of violations of Section 8(a)(5)

Examples of violations of Section 8(a)(5) are as follows:

- Refusing to meet with the employees' representative because the employees are out on strike.
- Insisting, until bargaining negotiations break down, on a contract provision that all employees will be polled by secret ballot before the union calls a strike.
- Refusing to supply the employees' representative with cost and other data concerning a group insurance plan covering the employees.
- Announcing a wage increase without consulting the employees' representative.
- Subcontracting certain work to another employer without notifying the union that represents the affected employees and without giving the union an opportunity to bargain concerning the change in working conditions of the employees.

Section 8(e)—Entering a Hot Cargo Agreement

Section 8(e), added to the Act in 1959, makes it an unfair labor practice for any labor organization and any employer to enter into what is commonly called a "hot cargo" or "hot goods" agreement. It may also limit the restrictions that can be placed on the subcontracting of work by an employer. The typical hot cargo or hot goods clause in use before the 1959 amendment to the Act provided that employees would not be required by their employer to handle or work on goods or materials going to, or coming from, an employer designated by the union as "unfair." Such goods were said to be "hot

cargo," thereby giving Section 8(e) its popular name. These clauses were most common in the construction and trucking industries.

What is prohibited

Section 8(e) forbids an employer and a labor organization to make an agreement whereby the employer agrees to stop doing business with any other employer and declares void and unenforceable any such agreement that is made. It should be noted that a strike or picketing, or any other employee action, or the threat of it, to force an employer to agree to a hot cargo provision, or to force him to act in accordance with such a clause, has been held by the Board to be a violation of Section 8(b)(4). Exceptions are allowed in the construction and garment industries, and a union may seek, by contract, to keep within a bargaining unit work that is being done by the employees in the unit or to secure work which is "fairly claimable" in that unit.

Exceptions for construction and garment industries

In the construction industry a union and an employer in the industry may agree to a provision that restricts the contracting or subcontracting of work to be done at the construction site. Such a clause contained in the agreement between the employer and the union typically provides that if work is subcontracted by the employer it must go to an employer who has an agreement with the union. A union in the construction industry may engage in a strike and picketing to obtain, but not to enforce, contractual restrictions of this nature. Similarly, in the garment industry an employer and a union can agree that work to be done on the goods or on the premises of a jobber or manufacturer, or work that is part of "an intergrated process of production in the apparel and clothing industry," can be subcontracted only to an employer who has an agreement with the union. This exception, unlike the previous one concerning the construction industry, allows a labor organization in the garment industry not only to seek to obtain, but also to enforce, such a restriction on subcontracting by striking, picketing, or other lawful action.

Unfair Labor Practices of Labor Organizations

Section 8(b)(1)(A) forbids a labor organization or its agents "to restrain or coerce employees in the exercise of the rights guaranteed in section 7." The section also provides that it is not intended to "impair the rights of a labor organization to prescribe its own rules" concerning membership in the labor organization.

Section 8(b)(1)(A)—Restraint and Coercion of Employees

Section 8(b)(1)(A) compared with Section 8(a)(1)

Like Section 8(a)(1), Section 8(b)(1)(A) is violated by conduct that independently restrains or coerces employees in the exercise of their Section 7 rights regardless of whether the conduct also violates other provisions of Section 8(b). But whereas employer violations of Section 8(a)(2), (3), (4), and (5) are held to be violations of Section 8(a)(1) too, the Board has held, based on the intent of Congress when Section 8(b)(1)(A) was written, that violations of Section 8(b)(2) through (7) do not also "derivatively" violate Section 8(b)(1)(A). The Board does hold, however, that making or enforcing illegal union-security agreements or hiring agreements that condition employment on union membership not only violates Section 8(b)(2) but also Section 8(b)(1)(A), since such action restrains or coerces employees in their Section 7 rights.

Union conduct which is reasonably calculated to restrain or coerce employees in their Section 7 rights violates Section 8(b)(1)(A) whether or not it succeeds in actually restraining or coercing employees.

A union may violate Section 8(b)(1)(A) by coercive conduct of its officers or agents, of pickets on a picket line endorsed by the union, or of strikers who engage in coercion in the presence of union representatives who do not repudiate the conduct.

What violates Section 8(b)(1)(A)

Unlawful coercion may consist of acts specifically directed at an employee such as physical assaults, threats of violence, and threats to affect an employee's job status. Coercion also includes other forms of pressure against employees such as acts of a union while representing employees as their exclusive bargaining agent (see Sec. 9(a), p. 10). A union which is a statutory bargaining representative owes a duty of fair representation to all the employees it represents. It may exercise a wide range of reasonable discretion in carrying out the representative function, but it violates Section 8(b)(1)(A) if, while acting as an employee's statutory bargaining representative, it takes or withholds action in connection with his employment because of his union activities or for any irrevelevant or arbitrary reason such as the employee's race or sex.

Section 8(b)(1)(A) recognizes the right of unions to establish and enforce rules of membership and to control their internal affairs. This right is limited to union rules and discipline which affect the rights of employees as union members and which are not enforced by action affecting an employee's

employment. Also, rules to be protected must be aimed at matters of legitimate concern to unions such as the encouragement of members to support a lawful strike or participation in union meetings. Rules which conflict with public policy, such as rules which limit a member's right to file unfair labor practice charges, are not protected. And a union may not fine a member for filing a decertification petition although it may expel him for doing so. A union's right to make and enforce its own regulations does not extend to its enforcement of its regulations in an unreasonable manner, such as by levying fines which are excessive.

Examples of restraint or coercion that violate Section 8(b)(1)(A) when done by a union or its agents include the following:

Examples of violations of Section 8(b)(1)(A)

- Mass picketing in such numbers that nonstriking employees are physically barred from entering the plant.
- Acts of force or violence on the picket line, or in connection with a strike.
- Threats to do bodily injury to nonstriking employees.
- Threats to employees that they will lose their jobs unless they support the union's activities.
- Statement to an employee who opposes the union that the employee will lose his job if the union wins a majority in the plant.
- Entering into an agreement with an employer which recognizes the union as exclusive bargaining representative when it has not been chosen by a majority of the employees.
- Fining or expelling a member for crossing a picket line which is unlawful under the Act or which violates a no-strike agreement.
- Fining an employee for conduct in which he engaged after resigning from the union.
- Fining a member an excessive amount.
- Fining or expelling a member for filing unfair labor practice charges with the Board or for participating in an investigation conducted by the Board.

The following are examples of restraint or coercion that violate Section 8(b)(1)(A) when done by a union which is the exclusive bargaining representative:

- Refusing to process a grievance in retaliation against an employee's criticism of union officers.

- Maintaining a seniority arrangement with an employer under which seniority is based on the employee's prior representation by the union elsewhere.
- Rejecting an application for referral to a job in a unit represented by the union based on the applicant's race or union activities.

Section 8(b)(1)(B)—Restraint and Coercion of Employers

Section 8(b)(1)(B) prohibits a labor organization from restraining or coercing an employer in the selection of a bargaining representative. The prohibition applies regardless of whether the labor organization is the majority representative of the employees in the bargaining unit. The prohibition extends to coercion applied by a union to a union member who is a representative of the employer in the adjustment of grievances. This section is violated by such conduct as the following:

Examples of violations of Section 8(b)(1)(B)

- Insisting on meeting only with a company's owners and refusing to meet with the attorney the company has engaged to represent the company in contract negotiations, and threatening to strike to force the company to accept its demands.
- Striking against several members of an employer association that had bargained with the union as the representative of the employers with resulting individual contracts being signed by the struck employers.
- Insisting during contract negotiations that the employer agree to accept working conditions which will be established by a bargaining group to which it does not belong.
- Fining or expelling a foreman-member for the way he applies the bargaining contract while carrying out his supervisory functions or fining a foreman-member having the authority to adjust grievances for any reason associated with his job.

Section 8(b)(2)—Causing or Attempting To Cause Discrimination

Section 8(b)(2) makes it an unfair labor practice for a labor organization to cause an employer to discriminate against an employee in violation of Section 8(a)(3). As discussed earlier, Section 8(a)(3) prohibits an employer from discriminating against an employee in regard to wages, hours, and other conditions of employment for the purpose of encouraging or discouraging membership in a labor organization. It does allow, however, the making of union-security agreements under certain specified conditions.

A union violates Section 8(b)(2), for example, by demanding that an employer discriminate against employees because of their lack of union membership where there is no valid union-shop agreement in effect. The section can also be violated by agreements or arrangements with employers that unlawfully condition employment or job benefits on union membership, on the performance of union membership obligations, or on arbitrary grounds. Union conduct affecting an employee's employment in a way which is contrary to provisions of the bargaining contract may likewise be violative of the section. But union action which causes detriment to an individual employee in his employment does not violate Section 8(b)(2) if it is consistent with nondiscriminatory provisions of a bargaining contract negotiated for the benefit of the total bargaining unit or if it is for some other legitimate purpose.

What violates Section 8(b)(2)

To find that a union caused an employer to discriminate, it is not necessary to show that any express demand was spoken. A union's conduct, accompanied by statements advising or suggesting that action is expected of an employer, may be enough to find a violation of this section if the union's action can be shown to be a causal factor in the employer's discrimination.

Contracts or informal arrangements with a union under which an employer gives preferential treatment to union members are violations of Section 8(b)(2). It is not unlawful for an employer and a union to enter an agreement whereby the employer agrees to hire new employees exclusively through the union hiring hall so long as there is neither a provision in the agreement nor a practice in effect that discriminates against nonunion members in favor of union members or otherwise discriminates on the basis of union membership obligations. Both the agreement and the actual operation of the hiring hall must be nondiscriminatory; referrals must be made without reference to union membership or irrelevant or arbitrary considerations such as race. Referral standards or procedures, even if nondiscriminatory on their face, are unlawful when they continue previously discriminatory conditions of referral. However, a union may in setting referral standards consider legitimate aims such as sharing available work and easing the impact of local unemployment. It may also charge referral fees if the amount of the fee is reasonably related to the cost of operating the referral service.

Illegal hiring-hall agreements and practices

Illegal union-security agreements

Union-security agreements that require employees to become members of the union after they are hired are permitted by this section as previously discussed. Union-security agreements that do not meet all the requirements listed on page 3 will not support a discharge. A union that attempts to force an employer to enter an illegal union-security agreement, or that enters and keeps in effect such an agreement, violates Section 8(b)(2), as does a union that attempts to enforce such an illegal agreement by bringing about an employee's discharge. Even when a union-security provision of a bargaining contract meets all statutory requirements so that it is permitted by Section 8(a)(3), a union may not lawfully require the discharge of an employee under the provision unless the employee had been informed of the union-security agreement and his specific obligation under it. And a union violates Section 8(b)(2) if it tries to use the union-security provisions of a contract to collect payments other than periodic dues and initiation fees uniformly required of members. Assessments, fines, and penalties may not be enforced by application of a union-security contract.

Examples of violations of Section 8(b)(2)

Examples of violations of Section 8(b)(2) are:

- Causing an employer to discharge an employee because he circulated a petition urging a change in the union's method of selecting shop stewards.
- Causing an employer to discharge an employee because he made speeches against a contract proposed by the union.
- Making a contract that requires an employer to hire only members of the union or employees "satisfactory" to the union.
- Causing an employer to reduce an employee's seniority because he engaged in antiunion acts.
- Refusing referral or giving preference on the basis of race or union activities in making job referrals to units represented by the union.
- Seeking the discharge of an employee under a union-security agreement for failure to pay a fine levied by the union.

Section 8(b)(3)—Refusal To Bargain in Good Faith

Section 8(b)(3) makes it illegal for a labor organization to refuse to bargain in good faith with an employer about wages, hours, and other conditions of employment if it is the representative of his employees. This section imposes on labor organizations the same duty to bargain in good faith that

is imposed on employers by Section 8(a)(5). Both the labor organization and the employer are required to follow the procedure set out in Section 8(d) before terminating or changing an existing contract (see pages 7 and 8).

A labor organization that is the employees' representative must meet at reasonable times with the employer or his designated representative, must confer in good faith on matters pertaining to wages, hours, or other conditions of employment, or the negotiation of an agreement, or any question arising under an agreement, and must sign a written agreement if requested and if one is reached. The obligation does not require the labor organization or the employer to agree to a proposal by the other party or make a concession to the other party, but it does require bargaining with an open mind in an attempt to reach agreement. So, while a union may try in contract negotiations to establish wages and benefits comparable to those contained in other bargaining agreements in the area, it may not insist on such terms without giving the employer an opportunity to bargain about the terms. Likewise, a union may seek *voluntary* bargaining on nonmandatory subjects of bargaining (p. 26), such as a provision for an industry promotion fund, but may not *insist* on bargaining about such subjects or condition execution of a contract on the reaching of agreement on a nonmandatory subject.

Where a union has been bargaining with a group of employers in a multiemployer bargaining unit, it may withdraw at any time from bargaining upon that basis and bargain with one of the employers individually if the individual employer and the multiemployer group agree to the union's withdrawal. And even in the absence of employer consent a union may withdraw from multiemployer bargaining by giving the employers unequivocal notice of its withdrawal near the expiration of the agreement but before bargaining on a new contract had begun. In some circumstances a union may withdraw after a breakdown in the multiemployer bargaining.

Section 8(b)(3) not only requires that a union representative bargain in good faith with employers, but also requires that the union carry out its bargaining duty fairly with respect to the employees it represents. A union, therefore, violates Section 8(b)(3) if it negotiates a contract which conflicts with that duty, such as a contract with racially discriminatory provisions, or if it refuses to handle grievances under the contract for irrelevant or arbitrary reasons.

Section 8(b)(3) is violated by any of the following:

- Insisting on the inclusion of illegal provisions in a contract, such as a closed shop or a discriminatory hiring hall.
- Refusing to negotiate on a proposal for a written contract.
- Striking against an employer who has bargained, and continues to bargain, on a multi-employer basis to compel him to bargain separately.
- Refusing to meet with the attorney designated by the employer as his representative in negotiations.
- Terminating an existing contract and striking for a new one without notifying the employer, the Federal Mediation and Conciliation Service, and the State mediation service, if any.
- Conditioning the execution of an agreement upon inclusion of a nonmandatory provision such as a performance bond.
- Refusing to process a grievance because of the race, sex, or union activities of an employee for whom the union is the statutory bargaining representative.

Examples of violations of Section 8(b)(3)

Section 8(b)(4)—Prohibited Strikes and Boycotts

Section 8(b)(4) prohibits a labor organization from engaging in strikes or boycotts or taking other specified actions to accomplish certain purposes or "objects" as they are called in the Act. The proscribed action is listed in clauses (i) and (ii), the objects are described in subparagraphs (A) through (D). A union commits an unfair labor practice if it takes any of the kinds of action listed in clauses (i) and (ii) as a means of accomplishing any of the objects listed in the four subparagraphs.

Clause (i) forbids a union to engage in a strike, or to induce or encourage a strike, work stoppage, or a refusal to perform services by "any individual employed by any person engaged in commerce or in an industry affecting commerce" for one of the objects listed in subparagraphs (A) through (D). The words "induce and encourage" are considered by the U.S. Supreme Court to be broad enough to include every form of influence or persuasion. For example, it has been held by the NLRB that a work stoppage on a picketed construction project was "induced" by a union through its business agents who, when they learned about the picketing, told the job stewards that they (the business agents) would not work behind the picket line. It was considered that this advice not only induced

Proscribed action: Inducing or encouraging a strike, work stoppage, or boycott

the stewards to leave the job, but caused them to pass the information on to their fellow employees, and that such conduct informed the other employees that they were expected not to work behind the picket line. The word "person" is defined in Section 2(1) as including "one or more individuals, labor organizations, partnerships, associations, corporations," and other legal persons. As so defined, the word "person" is broader than the word "employer." For example, a railroad company, although covered by the Railway Labor Act, is excluded from the definition of "employer" in the National Labor Relations Act and, therefore, neither the railroad company nor its employees are covered by the National Labor Relations Act. But a railroad company is a "person engaged in commerce" as defined above and, therefore, a labor organization is forbidden to "induce or encourage" individuals employed by a railroad company to engage in a strike, work stoppage, or boycott for any of the objects in subparagraphs (A) through (D).

Proscribed action: Threats, coercion, and restraint

Clause (ii) makes it an unfair labor practice for a union to "threaten, coerce, or restrain any person engaged in commerce or in an industry affecting commerce" for any of the proscribed objects. Even though no direct threat is voiced by the union, there may nevertheless be coercion and restraint that violates this clause. For example, where a union picketed a construction job to bring about the removal of a nonunion subcontractor in violation of Section 8(b)(4)(B), the picketing induced employees of several other subcontractors to stop work. When the general contractor asked what he could do to stop the picketing, the union's business agent replied that the picketing would stop only if the nonunion subcontractor were removed from the job. The NLRB held this to be "coercion and restraint" within the meaning of clause (ii).

Subparagraph (A)—Prohibited object: Compelling membership in an employer or labor organization or compelling a hot cargo agreement

Section 8(b)(4)(A) prohibits unions from engaging in clause (i) or (ii) action to compel an employer or self-employed person to join any labor or employer organization; or to force an employer to enter a hot cargo agreement prohibited by Section 8(e). Examples of violations of this section are:

Examples of violations of Section 8(b)(4)(A)

- In an attempt to compel a beer distributor to join a union, the union prevents the distributor from obtaining beer at a brewery by inducing the brewery's employees to refuse to fill the distributor's orders.

- In an attempt to secure for its members certain stevedoring work required at an employer's unloading operation, the union pickets to force the employer either to join an employer association with which the union has a contract or to hire a stevedoring firm that is a member of the association.
- A union pickets an employer (one not in the construction industry), or threatens to picket him, to compel that employer to enter into an agreement whereby he will only do business with persons who have an agreement with a union.

Subparagraph (B)—Prohibited object: Compelling a boycott or work stoppage

Section 8(b)(4)(B) contains the Act's secondary boycott provision. A secondary boycott occurs if a union has a dispute with Company A and in furtherance of that dispute causes the employees of Company B to stop handling the products of Company A, or otherwise forces Company B to stop doing business with Company A. The dispute is with Company A, called the "primary" employer, the union's action is against Company B, called the "secondary" employer, hence the term "secondary boycott." In many cases the secondary employer is a customer or supplier of the primary employer with whom the union has the dispute. In general, the Act prohibits both the secondary boycott and the threat of it. Examples of prohibited secondary boycotts are:

Examples of violations of Section 8(b)(4)(B)

- Picketing an employer to force him to stop doing business with another employer who has refused to recognize the union.
- Asking the employees of a plumbing contractor not to work on connecting up air-conditioning equipment manufactured by a nonunion employer whom the union is attempting to organize.
- Urging employees of a building contractor not to install doors which were made by a manufacturer which is nonunion or which employs members of a rival union.
- Telling an employer that his plant will be picketed if he continues to do business with an employer the union has designated as "unfair."

The prohibitions of Section 8(b)(4)(B) do not protect a secondary employer from the incidental effects of union action that is taken directly against the primary employer. Thus, it is lawful for a union to urge employees of a secondary supplier at the primary employer's plant not to cross

a picket line there. Section 8(b)(4)(B) also does not proscribe union action to prevent an employer from contracting out work customarily performed by his employees, even though an incidental effect of such conduct might be to compel that employer to cease doing business with the subcontractor.

In order to be protected against the union action that is prohibited under this subparagraph the secondary employer has to be a neutral as concerns the dispute between the union and the primary employer. For secondary boycott purposes an employer is considered an "ally" of the primary employer and, therefore, not protected from union action in certain situations. One is based on the ownership and operational relationship between the primary and secondary employers. Here, a number of factors are considered, particularly the following: Are the primary and secondary employers owned and controlled by the same person or persons? Are they engaged in "closely integrated operations"? May they be treated as a single employer under the Act? Another test of the "ally" relationship is based on the conduct of the secondary employer. If an employer, despite his claim of neutrality in the dispute, acts in a way that indicates that he has abandoned his "neutral" position, he opens himself up to primary action by the union. An example of this would be an employer who, claiming to be a neutral, enters into an arrangement with a struck employer whereby he accepts and performs farmed-out-work of that employer who would normally do the work himself, but who cannot perform the work because his plant is closed by a strike.

When an employer is not protected from secondary strikes and boycotts

When employees of a primary employer and those of a secondary employer work on the same premises, a special situation is involved and the usual rules do not apply. A typical example of the share site or "common situs" situation is where a subcontractor with whom a union has a dispute is engaged at work on a construction site alongside other subcontractors, with whom the union has no dispute. Picketing at a common situs is permissible if directed solely against the primary employer. But it is prohibited if directed against secondary employers regularly engaged at that site. To assist in determining whether picketing at a common site is restricted to the primary employer and therefore permissible, or directed at a secondary employer and therefore violative of the statute, the NLRB and the courts have suggested various guidelines for evaluating the object of the picketing, including the following:

When a union may picket an employer who shares a site with another employer

Subject to the qualification noted below, the picketing would appear to be primary picketing, if the picketing is:

1. Limited to times when the employees of the primary employer are working on the premises.
2. Limited to times when the primary employer is carrying on his normal business there.
3. Confined to places reasonably close to where the employees of the primary employer are working.
4. Conducted so that the picket signs, the banners, and the conduct of the pickets indicate clearly that the dispute is with the primary employer and not with the secondary employer.

These guidelines are known as the *Moore Dry Dock* standards from the case in which they were first formulated by the NLRB. However, the NLRB has held that picketing at a common situs may be unlawful notwithstanding compliance with the *Moore Dry Dock* standards if a union's statements or actions otherwise indicate that the picketing has an unlawful objective.

Picketing contractors' gates

In some situations a company may set aside, or reserve, a certain plant gate, or entrance to its premises, for the exclusive use of a contractor. If a union has a labor dispute with the company and pickets the company's premises, including the gate so reserved, the union may be held to have violated Section 8(b)(4)(B). The U.S. Supreme Court has stated the circumstances under which such a violation may be found as follows:

> There must be a separate gate, marked and set apart from other gates; the work done by the men who use the gate must be unrelated to the normal operations of the employer, and the work must be of a kind that would not, if done when the plant were engaged in its regular operations, necessitate curtailing those operations.

However, if the reserved gate is used by employees of both the company and the contractor, the picketing would be considered primary and not a violation of Section 8(b)(4)(B).

Subparagraph (B)—Prohibited object: Compelling recognition of an uncertified union

Section 8(b)(4)(B) also prohibits secondary action to compel an employer to recognize or bargain with a union that is not the certified representative of his employees. If a union takes action described in clause (i) or (ii) against a secondary employer, and the union's object is recognition by the primary employer, the union commits an unfair labor practice under this section. To establish

that the union has an object of recognition, a specific demand by the union for recognition need not be shown; a demand for a contract, which implies recognition or at least bargaining, is enough to establish an 8(b)(4)(B) object.

Subparagraph (C)—Prohibited object: Compelling recognition of a union if another union has been certified

Section 8(b)(4)(C) forbids a labor organization from using clause (i) or (ii) conduct to force an employer to recognize or bargain with a labor organization other than the one that is currently certified as the representative of his employees. Section 8(b)(4)(C) has been held not to apply where the picketing union is merely protesting working conditions which are substandard for the area.

Subparagraph (D)—Prohibited object: Compelling assignment of certain work to certain employees

Section 8(b)(4)(D) forbids a labor organization from engaging in action described in clauses (i) and (ii) for the purpose of forcing any employer to assign certain work to "employees in a particular labor organization or in a particular trade, craft, or class rather than to employees in another labor organization or in another trade, craft, or class." The Act sets up a special procedure for handling disputes over work assignments that will be discussed later in this material (see page 53).

Publicity such as handbilling allowed by Section 8(b)(4)

The final provision in Section 8(b)(4) provides that nothing in Section 8(b)(4) shall be construed "to prohibit publicity, other than picketing, for the purpose of truthfully advising the public, including consumers and members of a labor organization, that a product or products are produced by an employer with whom the labor organization has a primary dispute and are distributed by another employer." Such publicity is not protected if it has "an effect of inducing any individual employed by any person other than the primary employer" to refuse to handle any goods or not to perform services. The Supreme Court has held that this provision permitted a union to distribute handbills at the stores of neutral food chains asking the public not to buy certain items distributed by a wholesaler with whom the union had a primary dispute. Moreover, it has also held that peaceful picketing at the stores of a neutral food chain to persuade customers not to buy the products of a struck employer when they traded in these stores was not prohibited by Section 8(b)(4).

Section 8(b)(5)—Excessive or Discriminatory Membership Fees

Section 8(b)(5) makes it illegal for a union to charge employees who are covered by an authorized union-security agreement a membership fee "in an amount which the Board finds excessive or discriminatory under all the circumstances." The section also provides that the Board in making its finding must consider among other factors "the practices and customs of labor organizations in the

particular industry, and the wages currently paid to the employees affected."

Examples of violations of this section include:

Examples of violations of Section 8(b)(5)

- Charging old employees who do not join the union until after a union-security agreement goes into effect an initiation fee of $15 while charging new employees only $5.
- Increasing the initiation fee from $75 to $250 and thus charging new members an amount equal to about 4 week's wages when other unions in the area charge a fee equal to about one-half the employee's first week's pay.

Section 8(b)(6)—"Featherbedding"

Section 8(b)(6) forbids a labor organization "to cause or attempt to cause an employer to pay or deliver or agree to pay or deliver any money or other thing of value, in the nature of an exaction, for services which are not performed or not to be performed."

Section 8(b)(7)—Organizational and Recognitional Picketing by Noncertified Unions

Section 8(b)(7) prohibits a labor organization that is not currently certified as the employees' representative from picketing or threatening to picket with an object of obtaining recognition by the employer (recognitional picketing) or acceptance by his employees as their representative (organizational picketing). The object of picketing is ascertained from all the surrounding facts including the message on the picket signs and any communications between the union and the employer. "Recognitional" picketing as used in Section 8(b)(7) refers to picketing to obtain an employer's initial recognition of the union as bargaining representative of its employees or to force the employer, without formal recognition of the union, to maintain a specific and detailed set of working conditions. It does not include picketing by an incumbent union for continued recogition or for a new contract. Neither does it include picketing which seeks to prevent the employer from undermining area standards of working conditions by operating at less than the labor costs which prevail under bargaining contracts in the area.

Recognitional and organizational picketing are prohibited in three specific instances:

A. When the employer has lawfully recognized another union and a representation election would be barred by either the provisions of the Act or the Board's Rules, as in the case of a valid contract between the employer and the other union (8(b)(7)(A)). (A union is

considered lawfully recognized when the employer's recognition of the union cannot be attacked under the unfair labor practice provisions of Section 8 of the Act.)

B. When a valid NLRB representation election has been held within the previous 12 months (8(b)(7)(B)).

C. When a representation petition is not filed "within a reasonable period of time not to exceed thirty days from the commencement of such picketing" (8(b)(7)(C)).

Publicity picketing

Subparagraph (C) is subject to an exception, called a proviso, which permits picketing "for the purpose of truthfully advising the public (including consumers)" that an employer does not employ union members or have a contract with a labor organization. However, such picketing loses the protection of this proviso if it has a substantial effect on the employer's business because it induces "any individual employed by any other person" to refuse to pick up or deliver goods or to perform other services.

Expedited elections under Section 8(b)(7)(C)

If an 8(b)(7)(C) charge is filed against the picketing union and a representation petition is filed within a reasonable time after the picketing starts, subparagraph (C) provides for an election to be held forthwith. This election requires neither a hearing nor a showing of interest among the employees. As a consequence the election can be held and the results obtained faster than in a regular election under Section 9(c), and for this reason it is called an "expedited" election. Petitions filed more than a reasonable time after picketing begins and petitions filed during picketing protected by the 8(b)(7)(C) proviso, discussed above, are processed under normal election procedures and the election will not be expedited. The reasonable period in which to file a petition cannot exceed 30 days and may be shorter, when, for instance, picketing is accompanied by violence.

Examples of violations of Section 8(b)(7) are as follows:

Examples of violations of Section 8(b)(7)

- Picketing by a union for organizational purposes shortly after the employer has entered a lawful contract with another union. (8(b)(7)(A))
- Picketing by a union for organizational purposes a few months after a valid NLRB election in which a majority of the employees in the unit voted to have no union. (8(b)(7)(B))
- Picketing by a union for recognition continuing for more than 30 days without the filing

of a representation petition where the picketing stops all deliveries by employees of another employer. (8(b)(7)(C))

Section 8(e)—Entering a Hot Cargo Agreement

Section 8(e) makes it an unfair labor practice for an employer or a labor organization to enter a hot cargo agreement. This section applies equally to unions and to employers. The discussion of this section as an unfair labor practice of employers has been treated as a discussion of an unfair labor practice of unions as well. (See pages 28 and 29.)

How the Act Is Enforced

The rights of employees declared by Congress in the National Labor Relations Act are not self-enforcing. To ensure that employees may exercise these rights, and to protect them and the public from unfair labor practices, Congress established the NLRB to administer and enforce the Act.

Organization of the NLRB

The Board

The General Counsel

The Regional Offices

The NLRB includes the Board itself, which is composed of five members with their respective staffs, the General Counsel of the NLRB and his staff, and the NLRB Regional Offices. The General Counsel has final authority on behalf of the Board, in respect to the investigation of charges and issuance of complaints. Members of the Board are appointed by the President, with consent of the Senate, for 5-year terms. The General Counsel is also appointed by the President, with consent of the Senate, for a 4-year term. Offices of the Board and the General Counsel are in Washington, D.C. To assist in administering and enforcing the law, the NLRB has established 31 Regional and a number of other field offices. These Offices, located in major cities in various States, are under the general supervision of the General Counsel.

Functions of the NLRB

The Agency has two main functions: to conduct representation elections and certify the results, and to prevent employers and unions from engaging in unfair labor practices. In both kinds of cases, the processes of the NLRB are begun only when requested. Requests for such action must be made in writing on forms provided by the NLRB and filed with the proper Regional Office. The form used to request an election is called a "petition," and the form for unfair labor practices is called a "charge." The filing of a petition or a charge sets in motion the machinery of the NLRB under the

Act. Before discussing the machinery established by the Act, it would be well to understand the nature and extent of the authority of the NLRB.

Authority of the NLRB

The NLRB gets its authority from Congress by way of the National Labor Relations Act. The power of Congress to regulate labor-management relations is limited by the commerce clause of the United States Constitution. Although it can declare generally what the rights of employees are or should be, Congress can make its declaration of rights effective only in respect to enterprises whose operations "affect commerce" and labor disputes that "affect commerce." The NLRB, therefore, can direct elections and certify the results only in the case of an employer whose operations affect commerce. Similarly, it can act to prevent unfair labor practices only in cases involving labor disputes that affect, or would affect, commerce.

Enterprises whose operations affect commerce

"Commerce" includes trade, traffic, transportation, or communication within the District of Columbia or any Territory of the United States; or between any State or Territory and any other State, Territory, or the District of Columbia; or between two points in the same State, but through any other State, Territory, the District of Columbia, or a foreign country. Examples of enterprises engaged in commerce are:

What is commerce

- A manufacturing company in California that sells and ships its product to buyers in Oregon.
- A company in Georgia that buys supplies in Louisiana.
- A trucking company that transports goods from one point in New York State through Pennsylvania to another point in New York State.
- A radio station in Minnesota that has listeners in Wisconsin.

Although a company may not have any direct dealings with enterprises in any other State, its operations may nevertheless affect commerce. The operations of a Massachusetts manufacturing company that sells all of its goods to Massachusetts wholesalers affect commerce if the wholesalers ship to buyers in other States. The effects of a labor dispute involving the Massachusetts manufacturing concern would be felt in other States and the labor dispute would, therefore, "affect" commerce. Using this test, it can be seen that the operations of almost any employer can be said to affect commerce. As a result, the authority of the NLRB could extend to all but purely local enterprises.

When the operations of an employer affect commerce

The Board does not act in all cases affecting commerce

Although the National Labor Relations Board could exercise its powers to enforce the Act in all cases involving enterprises whose operations affect commerce, the Board does not act in all such cases. In its discretion it limits the exercise of its power to cases involving enterprises whose effect on commerce is substantial. The Board's requirements for exercising its power or jurisdiction are called "jurisdictional standards." These standards are based on the yearly amount of business done by the enterprise, or on the yearly amount of its sales or of its purchases. They are stated in terms of total dollar volume of business and are different for different kinds of enterprises. The Board's standards in effect on January 1, 1970, are as follows:

NLRB jurisdictional standards

1. *Nonretail business:* Direct sales of goods to consumers in other States, or indirect sales through others (called outflow), of at least $50,000 a year; or direct purchases of goods from suppliers in other States, or indirect purchases through others (called inflow), of at least $50,000 a year.
2. *Office buildings:* Total annual revenue of $100,000 of which $25,000 or more is derived from organizations which meet any of the standards except the indirect outflow and indirect inflow standards established for nonretail enterprises.
3. *Retail enterprises:* At least $500,000 total annual volume of business.
4. *Public utilities:* At least $250,000 total annual volume of business, or $50,000 direct or indirect outflow or inflow.
5. *Newspapers:* At least $200,000 total annual volume of business.
6. *Radio, telegraph, television, and telephone enterprises:* At least $100,000 total annual volume of business.
7. *Hotels, motels, and residential apartment houses:* At least $500,000 total annual volume of business.
8. *Privately owned hospitals and nursing homes operated for profit:* At least $250,000 total annual volume of business for hospitals; at least $100,000 for nursing homes. Private hospitals which have no shareholders who would profit from their operation and public hospitals are excluded from NLRB jurisdiction by Section 2(2) of the Act.

9. *Transportation enterprises, links and channels of interstate commerce:* At least $50,000 total annual income from furnishing interstate passenger and freight transportation services; also performing services valued at $50,000 or more for businesses which meet any of the jurisdictional standards except the indirect outflow and indirect inflow standards established for nonretail enterprises.
10. *Transit systems:* At least $250,000 total annual volume of business.
11. *Taxicab companies:* At least $500,000 total annual volume of business.
12. *Associations:* These are regarded as a single employer in that the annual business of all association members is totaled to determine whether any of the standards apply.
13. *Enterprises in the Territories and the District of Columbia:* The jurisdictional standards apply in the Territories; all businesses in the District of Columbia come under NLRB jurisdiction.
14. *National defense:* Jurisdiction is asserted over all enterprises affecting commerce when their operations have a substantial impact on national defense, whether or not the enterprises satisfy any other standard.
15. *Private nonprofit universities and colleges:* At least $1,000,000 gross annual revenue from all sources (excluding contributions not available for operating expenses because of limitations imposed by the grantor).

Through enactment of the 1970 Postal Reorganization Act, jurisdiction of the NLRB was extended to the United States Postal Service, effective July 1, 1971.

In addition to the above-listed standards, the Board asserts jurisdiction over gambling casinos in Nevada and Puerto Rico, where these enterprises are legally operated, when their total annual revenue from gambling is at least $500,000.

Ordinarily if an enterprise does the total annual volume of business listed in the standard, it will

necessarily be engaged in activities that "affect" commerce. The Board must find, however, based on evidence, that the enterprise does in fact "affect" commerce.

The Board has established the policy that where an employer whose operations "affect" commerce refuses to supply the Board with information concerning total annual business, etc., the Board may dispense with this requirement and exercise jurisdiction.

Finally, Section 14(c)(1) authorizes the Board, in its discretion, to decline to exercise jurisdiction over any class or category of employers where a labor dispute involving such employees is not sufficiently substantial to warrant the exercise of jurisdiction, provided that it cannot refuse to exercise jurisdiction over any labor dispute over which it would have asserted jurisdiction under the standards it had in effect on August 1, 1959. In accordance with this provision the Board has determined that it will not exercise jurisdiction over racetracks, owners, breeders, and trainers of racehorses, and real estate brokers.

In addition to the foregoing limitations the Act itself states that the term "employee" shall include any employee *except* the following:

The Act does not cover certain individuals

- Agricultural laborers.
- Domestic servants.
- Any individual employed by his parent or spouse.
- Independent contractors.
- Supervisors.
- Individuals employed by an employer subject to the Railway Labor Act.
- Government employees, including those employed by the U.S. Government, any Government corporation or Federal Reserve Bank, or any State or political subdivision such as a city, town, or school district.
- Individuals employed by hospitals operated entirely on a nonprofit basis.

Supervisors are excluded from the definition of "employee" and, therefore, not covered by the Act. Whether an individual is a supervisor for purposes of the Act depends on his authority over

employees and not merely his title. A supervisor is defined by the Act as any individual who has the authority, acting in the interest of his employer, to cause another employee to be hired, transferred, suspended, laid off, recalled, promoted, discharged, assigned, rewarded, or disciplined, either by taking the action himself or by recommending it to a superior; or who has the authority responsibly to direct other employees or adjust their grievances; provided, in all cases, that the exercise of authority is not of a merely routine or clerical nature, but requires the exercise of independent judgment. For example, a foreman who determined which employees would be laid off after the job superintendent directed him to lay off four employees would be considered a supervisor and would, therefore, not be covered by the Act; a "strawboss" who, after someone else determined which employees would be laid off, merely informed the employees of the layoff and who neither directed other employees nor adjusted their grievances would not be considered a supervisor and would be covered by the Act.

Supervisor defined

The term "employer" includes any person who acts as an agent of an employer, but it does *not* include the following:

- The United States or any State Government, or any political subdivision of either, or any Government corporation or Federal Reserve Bank.
- Hospitals operated entirely on a nonprofit basis.
- Any employer subject to the Railway Labor Act.

The Act does not cover certain employers

NLRB Procedure

The authority of the NLRB can be brought to bear in a representation proceeding only by the filing of a petition. Forms for petitions must be signed, sworn to or affirmed under oath, and filed with the Regional Office in the area where the unit of employees is located. If employees in the unit regularly work in more than one regional area, the petition may be filed with the Regional Office of any of such regions. Section 9(c)(1) provides that when a petition is filed, "the Board shall investigate such petition and if it has reasonable cause to believe that a question of representation affecting commerce exists shall provide for an appropriate hearing upon due notice." If the Board finds from the evidence presented at the hearing that "such a question of representation exists, it shall direct an election by secret ballot and shall certify the results thereof." Where there are three or more choices on the ballot and none receives a majority, Section 9(c)(3) provides for a runoff between the choice

Procedure in representation cases

that received the largest and the choice that received the second largest number of valid votes in the election. After the election, if a union receives a majority of the votes cast, it is certified; if no union gets a majority, that result is certified. A union that has been certified is entitled to be recognized by the employer as the exclusive bargaining agent for the employees in the unit. If the employer fails to bargain with the union, he commits an unfair labor practice.

Procedure in unfair labor practice cases

The procedure in an unfair labor practice case is begun by the filing of a charge. A charge may be filed by an employee, an employer, a labor organization, or any other person. Like petitions, charge forms, which are also available at Regional Offices, must be signed, sworn to or affirmed under oath, and filed with the appropriate Regional Office—that is, the Regional Office in the area where the alleged unfair labor practice was committed. Section 10 provides for the issuance of a complaint stating the charges and notifying the charged party of a hearing to be held concerning the charges. Such a complaint will issue only after investigation of the charges through the Regional Office indicates that an unfair labor practice has in fact occurred.

The hearing is before an NLRB Trial Examiner and is conducted in accordance with the rules of evidence and procedure that apply in the U.S. District Courts. Based on the hearing record, the Trial Examiner makes findings and recommendations to the Board. All parties to the hearing may appeal the Trial Examiner's decision to the Board. If the Board considers that the party named in the complaint has engaged in or is engaging in the unfair labor practices charged, the Board is authorized to issue an order requiring such person to cease and desist from such practices and to take appropriate affirmative action.

The 6-month rule limiting issuance of complaint

Section 10(b) provides that "no complaint shall issue based upon any unfair labor practice occurring more than six months prior to the filing of the charge with the Board and the service of a copy thereof upon the person against whom such charge is made." An exception is made if the charging party "was prevented from filing such charge by reason of service in the armed forces, in which event the six-month period shall be computed from the day of his discharge." It should be noted that the charging party must, within 6 months after the unfair labor practice occurs, file the charge with the Regional Office *and* serve copies of the charge upon each person against whom the charge

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is made. Normally service is made by sending the charge by registered mail, return receipt requested.

If the Regional Director refuses to issue a complaint in any case, the person who filed the charge may appeal the decision to the General Counsel in Washington. Section 3(d) places in the General Counsel "final authority, on behalf of the Board, in respect of the investigation of charges and issuance of complaints." If the General Counsel reverses the Regional Director's decision, he will direct that complaint be issued. If he approves the decision not to issue a complaint, there is no further appeal.

Appeal to the General Counsel if complaint is not issued

Powers of the NLRB

To enable the NLRB to perform its duties under the Act, Congress delegated to the Agency certain powers that can be used in all cases. These are principally powers having to do with investigations and hearings.

As previously indicated, all charges that are filed with the Regional Offices are investigated, as are petitions for representation elections. Section 11 establishes the powers of the Board and the Regional Offices in respect to hearings and investigations. The provisions of Section 11(1) authorize the Board or its agents to

Powers concerning investigations

- Examine and copy "any evidence of any person being investigated or proceeded against that relates to any matter under investigation or in question."
- Issue subpenas, on the application of any party to the proceeding, requiring the attendance and testimony of witnesses or the production of any evidence.
- Administer oaths and affirmations, examine witnesses, and receive evidence.
- Obtain a court order to compel the production of evidence or the giving of testimony.

No person shall be excused from testifying or from producing books, records, correspondence, documents, or other evidence in obedience to the subpena of the Board on the ground that the testimony or evidence required of him may tend to incriminate him or subject him to a penalty or forfeiture (Section 11(3)). If he claims his privilege against self-incrimination, and is compelled to testify, Section 11(3) protects him from later prosecution on account of anything about which he is compelled to testify. The last provision of Section 11(3) provides that an individual so testifying shall not be exempt from prosecution and punishment for perjury committed in so testifying. Section 12 states that "[a]ny person who shall willfully resist, prevent, impede, or interfere with any member

Power to compel testimony and require cooperation

of the Board or any of its agents or agencies in the performance of duties pursuant to this Act shall be punished by a fine of not more than $5,000 or by imprisonment for not more than one year, or both."

The Act is remedial, not criminal

Except for the foregoing section, which is a limited provision designed only to keep Board agents from being hampered by interference in their work under the statute, the National Labor Relations Act is not a criminal statute. It is entirely remedial. It is intended to prevent and remedy unfair labor practices, not to punish the person responsible for them. The Board is authorized by Section 10(c) not only to issue a cease-and-desist order, but "to take such affirmative action including reinstatement of employees with or without back pay, as will effectuate the policies of this Act."

Affirmative action may be ordered by the Board

The object of the Board's order in any case is two-fold: to eliminate the unfair labor practice and to undo the effects of the violation as much as possible. In determining what the remedy will be in any given case, the Board has considerable discretion. Ordinarily its order in regard to any particular unfair labor practice will follow a standard form that is designed to remedy that unfair labor practice, but the Board can, and often does, change the standard order to meet the needs of the case. Typical affirmative action of the Board may include orders to an employer who has engaged in unfair labor practices to:

Examples of affirmative action directed to employers

- Disestablish an employer-dominated union.
- Offer certain named individuals immediate and full reinstatement to their former positions or, if those positions no longer exist, to substantially equivalent positions without prejudice to their seniority and other rights and privileges, and with back pay, including interest.
- Upon request, bargain collectively with a certain union as the exclusive representative of the employees in a certain described unit and sign a written agreement if an understanding is reached.

Examples of affirmative action directed to unions

Examples of affirmative action that may be required of a union which has engaged in unfair labor practices include orders to:

- Notify the employer and the employee that it has no objection to reinstatement of certain employees, or employment of certain applicants, whose discriminatory discharge, or denial

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of employment, was caused by the union.

- Refund dues or fees illegally collected, plus interest.
- Upon request, bargain collectively with a certain employer and sign a written agreement if one is reached.

The Board's order usually includes a direction to the employer or the union or both requiring them to post notices in the employer's plant or the union's office notifying the employees that they will cease the unfair labor practices and informing them of any affirmative action being undertaken to remedy the violation. Special care is taken to be sure that these notices are readily understandable by the employees to whom they are addressed.

Special Proceedings in Certain Cases

Special proceedings are required by the Act in certain kinds of cases. These include the determination of jurisdictional disputes under Section 10(k) and injunction proceedings under Section 10(l) and (j).

Proceedings in jurisdictional disputes

Whenever it is charged that any person has engaged in an unfair labor practice in violation of Section 8(b)(4)(D), the Board must hear and determine the dispute out of which the unfair labor practice arises. Section 8(b)(4)(D) prohibits unions from striking or inducing a strike to compel an employer to assign particular work to employees in one union, or in one trade or craft, rather than another. For a jurisdictional dispute to exist, there must be real competition between unions or between groups of employees for certain work. In effect, Section 10(k) provides an opportunity for the parties to adjust the dispute during a 10-day period after notice of the 8(b)(4)(D) charge has been served. At the end of this period if the parties have not submitted to the Board satisfactory evidence that they have adjusted, or agreed on a method of adjusting, the dispute, the Board is "empowered and directed" to determine which of the competing groups is entitled to have the work.

The investigation of certain charges must be given priority

Section 10(l) provides that whenever a charge is filed alleging a violation of certain sections of the Act relating to boycotts, picketing, and work stoppages, the preliminary investigation of the charge must be given priority over all other types of cases in the Regional Office where it is filed. The unfair labor practices subject to this priority concerning the investigation are those defined in Section 8(b)(4)(A), (B), or (C), all three subparagraphs of Section 8(b)(7), and Section 8(e). Section 10(m)

requires that second priority be given to charges alleging violations of Section 8(a)(3), the prohibition against employer discrimination to encourage or discourage membership in a union, and Section 8(b)(2), which forbids unions to cause or attempt to cause such discrimination.

Injunction proceedings under Section 10(l)

If the preliminary investigation of any of the first priority cases shows that there is reasonable cause to believe that the charge is true and that a complaint should issue, Section 10(l) further requires that the U.S. District Court be petitioned to grant an injunction pending the final determination of the Board. The section authorizes the court to grant "such injunctive relief or temporary restraining order as it deems just and proper." Another provision of the section prohibits the application for an injunction based on a charge of violation of Section 8(b)(7) (the prohibition on organizational or recognitional picketing in certain situations) if a charge against an employer alleging violation of Section 8(a)(2) has been filed and the preliminary investigation establishes reasonable cause to believe that such charge is true.

Injunction relief may be sought in other cases

Section 10(j) allows the Board to petition for an injunction in connection with any unfair labor practice after a complaint has been issued. This section does not require that injunctive relief be sought, but only makes it possible for the Board to do so in cases where it is considered appropriate.

Court Enforcement of Board Orders

If an employer or a union fails to comply with a Board order, Section 10(e) empowers the Board to petition the U.S. Court of Appeals for a court decree enforcing the order of the Board. Section 10(f) provides that any person aggrieved by a final order of the Board granting or denying in whole or in part the relief sought may obtain a review of such order in any appropriate circuit court of appeals. When the court of appeals hears a petition concerning a Board order, it may enforce the order, remand it to the Board for reconsideration, change it, or set it aside entirely. If the court of appeals issues a decree enforcing the Board order, failure to comply may be punishable by fine or imprisonment for contempt of court.

In the U.S. Court of Appeals

Review by the U.S. Supreme Court

In some cases the U.S. Supreme Court may be asked to review the decision of a circuit court of appeals particularly where there is a conflict in the views of different courts on the same important problem.

Conclusion

In this material the entire Act has been covered, but, of necessity, the coverage has been brief. No attempt has been made to state the law in detail or to supply you with a textbook on labor law. We have tried to explain the Act in a manner intended to make it easier to understand what the basic provisions of the Act are and how they may concern you. If it helps you to recognize and know your rights and obligations under the Act, and aids in determining whether you need expert assistance when a problem arises, its purpose will have been satisfied. More than that: the objective of the Act will have been furthered.

The objective of the National Labor Relations Act, to avoid or reduce industrial strife and protect the public health, safety, and interest, can best be achieved by the parties or those who may become parties to an industrial dispute. Voluntary adjustment of differences at the community and local level is almost invariably the speediest, most satisfactory, and longest lasting way of carrying out the objective of the Act.

Efforts are being made in all our Regional Offices to increase the understanding of all parties as to what the law requires of them. Long experience has taught us that when the parties fully understand their rights and obligations, they are more ready and able to adjust their differences voluntarily. Seldom does a man go into a courtroom, a hearing, or any other avoidable contest, knowing that he is in the wrong and that he can expect to lose the decision. No one really likes to be publicly recorded as a law violator (and a loser too). Similarly, it is seldom that a man refuses to accept an informal adjustment of differences that is reasonable, knowing that he can obtain no better result from the formal proceeding, even if he prevails.

The consequences of ignorance in these matters—formal proceedings that can be time-consuming and costly, and which are often followed by bitterness and antagonism—are economically wasteful, and usually it is accurate to say that neither party really wins. It is in an attempt to bring about more widespread awareness of the basic law and thus help the parties avoid these consequences that this material has been prepared and presented as a part of a continuing program to increase understanding of the National Labor Relations Act.

Map Showing Boundaries of Regions, Subregions, and Resident Offices

● REGIONAL OFFICES:

1 BOSTON
2 NEW YORK
3 BUFFALO
4 PHILADELPHIA
5 BALTIMORE
6 PITTSBURGH
7 DETROIT
8 CLEVELAND
9 CINCINNATI
10 ATLANTA
11 WINSTON-SALEM
12 TAMPA
13 CHICAGO
14 ST. LOUIS
15 NEW ORLEANS
16 FT. WORTH
17 KANSAS CITY
18 MINNEAPOLIS
19 SEATTLE
20 SAN FRANCISCO
21 LOS ANGELES
22 NEWARK
23 HOUSTON
24 SANTURCE
25 INDIANAPOLIS
26 MEMPHIS
27 DENVER
28 ALBUQUERQUE
29 BROOKLYN
30 MILWAUKEE
31 LOS ANGELES

BOUNDARY LINES:

——— REGIONAL
- - - - - - - - SUB REG.
——— STATE

□ RESIDENT OFFICES:

LITTLE ROCK
MIAMI
NASHVILLE
PHOENIX
ALBANY
BIRMINGHAM
EL PASO
JACKSONVILLE

O SUBREGIONAL OFFICES:

36 PORTLAND
37 HONOLULU
38 PEORIA

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1 Boston, Mass. 02114, 7th Floor, Bulfinch Bldg., 15 New Chardon St.; *Telephone:* 617–223–3330.
Director: Robert S. Fuchs; *Regional Attorney:* Harold M. Kowal.

2 New York, N.Y. 10007, 36th Floor, Federal Bldg., 26 Federal Plaza; *Telephone:* 212–264–0300.
Director: Ivan C. McLeod; *Regional Attorney:* Sidney Danielson.

3 Buffalo, N.Y. 14202, 9th Floor, Federal Bldg., 111 W. Huron St.; *Telephone:* 716–842–3100.
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4 Philadelphia, Pa. 19107, 1700 Bankers Security Bldg., Walnut & Juniper Sts.; *Telephone:* 215–597–7601.
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5 Baltimore, Md. 21201, Room 1019, Federal Bldg., Charles Center; *Telephone:* 301–962–2822.
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6 Pittsburgh, Pa. 15222, 1536 Federal Bldg., 1000 Liberty Ave.; *Telephone:* 412–644–2977.
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7 Detroit, Mich. 48226, 500 Book Bldg., 1249 Washington Blvd.; *Telephone:* 313–226–3200.
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8 Cleveland, Ohio 44199, Room 1695, Federal Office Bldg., 1240 E. 9th St.; *Telephone:* 216–522–3715.
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22 Newark, N.J. 07102, 16th Floor, Federal Bldg., 970 Broad St.; *Telephone:* 201–645–2100.
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24 Hato Rey, P.R. 00919, 7th Floor, Pan Am Bldg., 255 Ponce de Leon Ave.; *Telephone:* 809–765–0404.
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25 Indianapolis, Ind. 46204, 614 ISTA Center, 150 W. Market St.; *Telephone:* 317–633–8921.
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29 Brooklyn, N.Y. 11201, 4th Floor, 16 Court St.; *Telephone:* 212–596–3535.
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1417 City Federal Bldg., 2026 2d Ave. North;
Telephone: 205–325–3877.
Resident Officer: H. Carlton Bryan, Jr.

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VT 016 806

COURSE OUTLINE FOR INDUSTRIAL ELECTRICITY.

TENNESSEE STATE BOARD FOR VOCATIONAL EDUCATION, NASHVILLE.
MF AVAILABLE IN VT-ERIC SET.
PUB DATE - OCT71 17P.

DESCRIPTORS - SECONDARY GRADES; *VOCATIONAL EDUCATION; VOCATIONAL DEVELOPMENT; TIME BLOCKS; BEHAVIORAL OBJECTIVES; RESOURCE MATERIALS; MANUFACTURING; *TRADE AND INDUSTRIAL EDUCATION; *ELECTRICITY; *INDUSTRIAL TECHNOLOGY; INDUSTRIAL ARTS; *COURSE DESCRIPTIONS
IDENTIFIERS - EDUCATIONAL AWARENESS; BEGINNING COMPETENCE

ABSTRACT - THIS SUGGESTED OUTLINE FOR A 2-YEAR, 1080-HOUR COURSE IN INDUSTRIAL ELECTRICITY AT THE HIGH SCHOOL LEVEL, MEETING THREE HOURS PER DAY, FIVE DAYS PER WEEK, ALLOTS 30 TO 40 PERCENT OF THE TIME TO MATHEMATICS, THEORY, AND RELATED SUBJECTS, AND THE REMAINDER TO PRACTICAL APPLICATION. DESIGNED FOR TWO GROUPS OF STUDENTS PER DAY, THE INSTRUCTIONAL MATERIALS INCLUDE THREE BEHAVIORAL OBJECTIVES, A BRIEF OUTLINE OF 16 BLOCKS OF INSTRUCTION, AND A SHORT COURSE DESCRIPTION. A LIST OF RESOURCE MATERIALS AND A BIBLIOGRAPHY ARE INCLUDED. (AG)

VT 016 806

A COURSE OUTLINE FOR

INDUSTRIAL ELECTRICITY

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FOREWORD

This course outline has been developed as a result of the needs expressed by instructors to provide some degree of uniformity in teaching Industrial Electricity in Tennessee.

This outline is by no means intended to be considered sufficient nor does it represent the procedure which must be followed in teaching Industrial Electricity in Tennessee. It is to serve only as a guide to one procedure which may be followed.

Further planning by individual instructors with respect to his program is extremely important and is encouraged.

Acknowledgement and a vote of appreciation is hereby given to all who worked so diligently in the development of these materials.

INDUSTRIAL ELECTRICITY

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INTRODUCTION

Electrical workers install electric wiring, switches, fixtures and numerous types of electrical equipment. They make and maintain electrical connections to machinery and its control apparatus.

Training in industrial electricity includes all basic phases of the electrical field along with the theoretical characteristics of circuits and electrical equipment. Practical instruction is given in the wiring of circuits including electric motor controls. Instruction is given in related mathematics, blueprint reading, applied science and safety.

OBJECTIVES

1. To instill in the student the necessary skills, technical and related information to become employable in the electrical field.
2. To develop a safety consciousness on the part of the learner that will enable him to develop safe working habits for himself and his fellow worker.
3. To develop personal qualities that are an important part of the learner's ability to maintain a high place in the world of work.

TIME ALLOTMENTS

This course is organized to accommodate two groups of students per day. Each group meets for three clock hours per day, five days per week. The individual's course is a minimum of 540 hours per year. The full course (1080 hours) can normally be completed in two years of high school work.

Under the state regulations, two units of credit per year are allowed for this course toward graduation.

Of the total time allotted 30 to 40% of the time will be devoted to mathematics, theory, and related subjects. The remainder of the time will be devoted to practical work on a useful basis.

BLOCKS OF INSTRUCTION

I. INTRODUCTION

II. SAFETY

III. THE INDUSTRIAL ELECTRICIAN AND HIS TRADE

IV. ELECTRICITY

V. OHMS LAW

VI. ELECTRICAL CONDUCTORS

VII. ELECTRICAL CIRCUITS

VIII. ELECTRICAL DRAFTING

IX. HOUSE WIRING

X. MAGNETISM AND ELECTROMAGNETISM

XI. GENERATORS AND ALTERNATORS

XII. A.C. AND D.C. MOTORS

XIII. ALTERNATING CURRENT

XIV. MATHEMATICS FOR ELECTRICIAN

XV. TRANSFORMERS

XVI. HIGH VOLTAGE INSTALLATIONS

COURSE OUTLINE

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- A. Atomic theory and structure
- B. Displacement of electrons
- C. Electron flow
- D. Conductors and insulators
- E. Electromagnetism
- F. Generation of electricity
- G. Electric motors
- H. Motor controls
- I. Measuring instruments
- J. Direct and alternating current
- K. Alternating current networks
- L. Frequency
- M. Motors and generators
- N. Home study techniques

II. SAFETY

- A. Health and safety for the worker
- B. Protection from electrical shock
- C. Clothing for wear on the job
- D. Building construction hazards
- E. Fire prevention and extinguishing
- F. Safety on the job

III. THE INDUSTRIAL ELECTRICIAN AND HIS TRADE

- A. History and development of the electrical industry
- B. Public and shop relations
- C. Importance of personality and qualities for success
- D. Occupational information

IV. ELECTRICITY

- A. Atoms
- B. Charges
- C. Voltage
- D. Amperage
- E. Static and current electricity
- F. Generation of electricity
- G. Methods of generation

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J. Storage batteries
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ABSTRACT - THIS BOOKLET HAS BEEN PREPARED TO ENABLE THOSE WISHING TO ENTER THE PAPER AND PULP INDUSTRY TO HAVE A BETTER UNDERSTANDING OF THE JOB DUTIES AND OPPORTUNITIES THAT ARE AVAILABLE TO THEM. IT PRESENTS INFORMATION GATHERED IN THE NORTHERN MIDWEST STATES AND DESCRIBES TYPICAL JOBS AND PROCESSES RATHER THAN THOSE FOUND AT ANY SINGLE SPECIFIC LOCATION. THE BOOKLET BEGINS WITH A BRIEF, ILLUSTRATED HISTORY OF PAPERMAKING, FOLLOWED BY INFORMATION PERTAINING TO JOBS AND PROCESSES CURRENTLY USED IN GROUNDWOOD (MECHANICAL) AND CHEMICAL AND RAG PAPERMAKING. THE FINAL SECTION CONTAINS A DISCUSSION OF CAREER OPPORTUNITIES, INCLUDING ENVIRONMENTAL CONDITIONS, PAY AND PROMOTION OPPORTUNITIES, AND EMPLOYMENT TRENDS. A JOB INDEX CONTAINING PLANT TITLES AND ASSOCIATED DICTIONARY OF OCCUPATIONAL TITLES (DOT) TITLE AND CODE IS PROVIDED. (SB)

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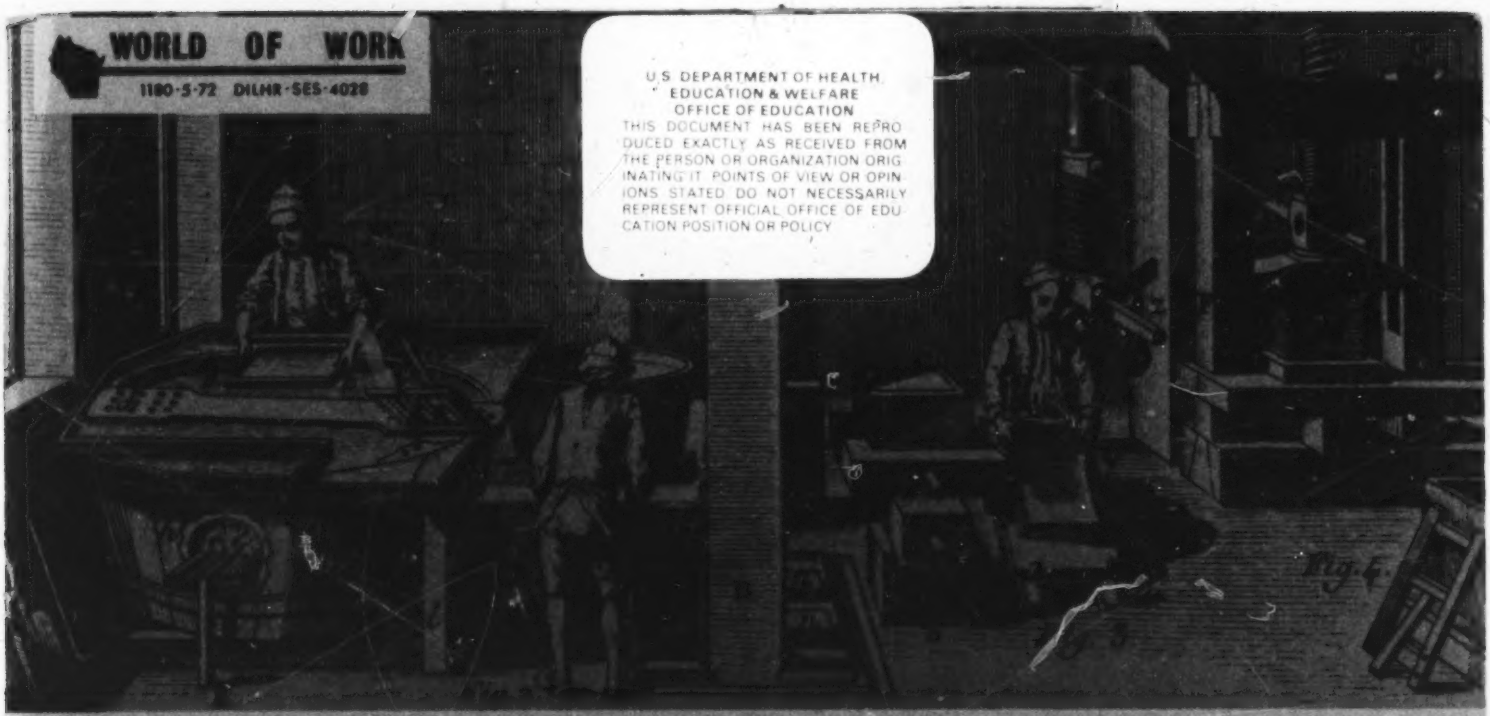

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ABOUT THE COVER . . .

The heart of an 18th Century French papermill is shown in the engraving above. The amount of manual labor shown contrasts with that in evidence below in the photo of a paper machine of today.

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acknowledgements . . .

The information contained in this booklet was collected by Bill Beutel and Richard Nilsson, and reported by Bill Beutel, under the supervision of William Miller, Chief of the Occupational Analysis Field Center of the Wisconsin State Employment Service. General guidance and direction were given by staff members of the Division of Occupational Analysis, United States Employment Service.

Without the cooperation and assistance of many firms in the Paper and Pulp Industry the collection of occupational data would have been impossible. Among the many firms that gave a great deal of time and effort, we would especially like to acknowledge the following: Kimberly-Clark Corporation, Neenah, Wisconsin; Mosinee Paper Mills, Mosinee, Wisconsin; Owens-Illinois Incorporated, Forest Products Division, Toledo, Ohio; Ward Paper Company, Arvey Corporation, Merrill, Wisconsin; Whiting-Plover Paper Company, a division of Nekoosa-Edwards Paper Company, Stevens Point, Wisconsin; St. Regis Paper Company, New York, New York; and the Scott Paper Company, Oconto Falls, Wisconsin.

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Special thanks must be given to the many individuals who gave their time in providing information for this project. This includes not only management personnel but also production workers who answered many questions about their jobs in the industry.

preface . . .

Today we are living in the age of some of the most intriguing industrial wonders in the history of mankind. Because of the rapidity of these developments and achievements, we are seldom astonished by them. Among these developments and achievements is one of the greatest wonders of our era -- common, ordinary, everyday paper. Fifty percent of the manufactured goods produced in the world are made in American factories and probably not one item is made without incorporating some kind of paper in its development, shipment, or sale.

An average family of four uses more than 2000 pounds of paper products per year. In other words, every man, woman, and child in the United States uses over 500 pounds of paper annually. This can perhaps be envisioned if you think of all the magazines, newspapers, boxes, bags, and tissue paper that are disposed of each week at your house.

In many instances, materials such as wood, glass, leather, rayon, and many more, were once the only materials used in the manufacture of specific products or goods. Paper is now being substituted for them and doing an equally satisfactory job. In some cases paper is doing the job in a superior fashion and, more important to us, paper is doing it more economically. The United States is the world leader in paper production, producing more than forty million tons per year. As stocks decline of other materials for which paper is being substituted, and as the economy expands, the amount of paper produced will increase.

This booklet has been prepared to enable those wishing to enter the Paper and Pulp Industry to have a better understanding of the job duties and opportunities that are available to them. It presents information gathered in the northern Midwest states and describes typical jobs and processes rather than those found at any single specific location. The jobs described in this booklet are the production line jobs found in the manufacture of paper and pulp. Many other jobs essential to the manufacture of paper and pulp, such as those found in developing new paper products, administration, air and water pollution, and forest management, are not discussed here.

PHOTO CREDITS

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CHAPTER
ONE

PAPERMAKING
FROM THEN TO NOW

Since the beginning of time, man has been communicating with his fellow man in a number of ways. Early man used a simple vocabulary which later developed into a language. As time passed, he began to communicate by drawing various designs or pictures on the walls of the caves that he inhabited. Man, being a curious and creative creature, soon developed a written language with which he could exchange information.

MAN'S FIRST WRITING MATERIALS

In early China, where some of man's first writings have been discovered, people wrote on leaves, bones, and tortoise shells. Later on, in the copper and bronze ages, man drew figures on bowls and similar objects to express himself.

BONE

BRONZE

PALM LEAVES

1~2

Early Egyptians about 3500 B.C. wrote on stone and clay. Several centuries later other Egyptians learned how to use papyrus, a reedy plant which grew in the marshes of the Nile River, to make writing material. In preparing a papyrus they took the pith, a soft substance, from the interior of the plant, cut it lengthwise into thin strips, laid the strips side by side, and crossed these strips with still others to form a network. They then dampened the network, put a compress or some weights on it to flatten and make it stick together, and placed it in the sun to dry into sheets. After the sheets dried, the Egyptians polished them, cut them into strips from 12 to 14 inches wide, and pasted the strips together to form rolls of writing material.[1]

1 A History of Paper Making, Kimberly-Clark Corporation, (Neenah, Wisconsin, 1966)

OTHER WRITING MATERIALS Another form of writing material was a thin sheet of wood to which a thin coat of wax was applied. Man wrote in the wax with a sharp instrument or pressed carved characters into the wax to form writing.

Parchment was still another form of writing material that was used. Parchment came into use at the beginning of the Christian era and with it came the first writings in book form.[2] To make parchment, hides of sheep and calves were soaked in lime, stretched on a frame, and scraped clean of all flesh. It is believed that parchment remained popular until about 1000 A.D. when manuscripts began to appear on paper.[3]

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2 Ibid.
3 Ibid.

PAPER IN CHINA

In 105 A. D. Ts'ai Lun, a young scholar in the Chinese royal court, created the first paper made from wood fibers. At that time the Chinese were writing on bamboo and silk, both expensive materials. Ts'ai Lun began to experiment with various materials to find a cheaper writing material. He discovered that waste silk, some mulberry bark, and hemp, mixed with water and beaten, would become a pulpy mass. He also mixed in rags and fish netting. He then ladled the mixture onto a coarse woolen cloth that permitted the water to be drained away. The mixture then hardened into a tough and durable sheet. The sheet was then rubbed with alum to make it smooth. It furnished a fine quality writing paper. "It was made entirely by hand and in separate sheets."[4]

4. Ibid.

PAPERMAKING SPREADS

The Chinese kept their papermaking secret until 750 A.D. when the process passed into Japan and Korea. By 1100 A.D. the papermaking process of China had come to Morocco. Some fifty years later papermaking was introduced into Europe.

Until the introduction of paper to Europe, the method of papermaking had not changed a great deal. The paper mold used was still very primitive. However, it was the beginning of the screen on the paper machines of today. Ts'ai Lun poured the pulp on coarse cloth stretched tight by a frame of bamboo, the wet cloth remaining in the mold until dry.

An innovation in the process consisted of dipping the screen into a vat filled with pulp, lifting it out and shaking it to insure even distribution of the pulp. The sheet was then left to dry. Because each sheet of paper needed a single mold, the next logical step was to make a removable bamboo frame which could be taken off the cloth. Instead of using thousands of molds, they could now use just one. This became known as the transfer mold.

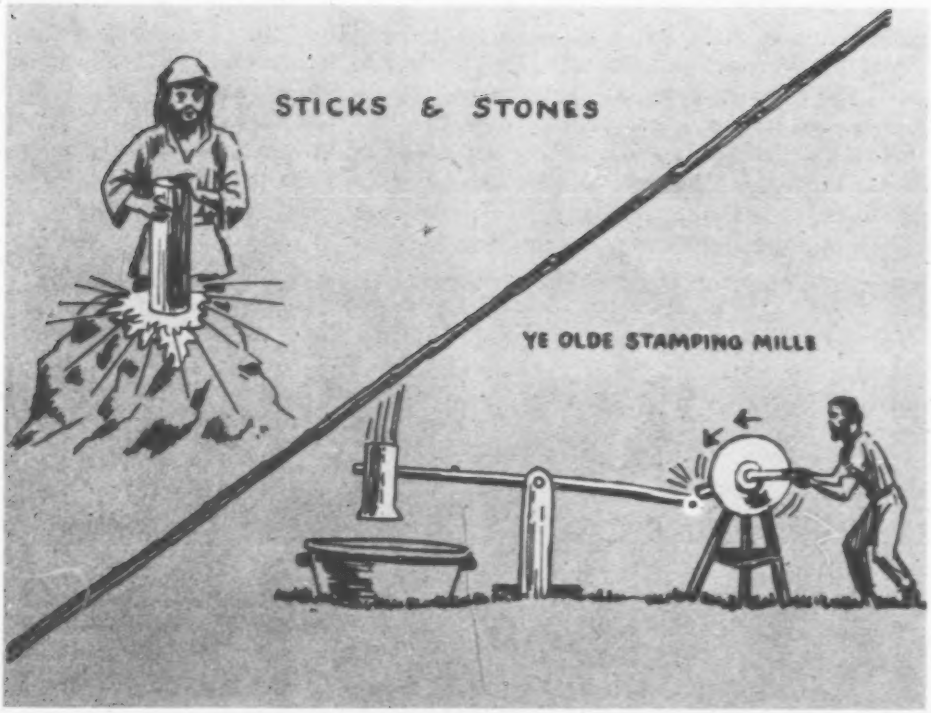
As papermaking became known in the world, the raw materials which went into the manufacture of paper changed. The early Chinese used silk, kelp, and mulberry bark. The Japanese used scrub-like plants for pulp. Branches of these plants were placed in boiling water to separate the bark from the wood. The bark was then peeled off and the wood used as firewood. This is an interesting fact as today, in the manufacture of pulp, the wood is used to make paper and the bark is burned as fuel.

The bark that the Japanese used was cleaned to remove imperfections. The outer bark was thrown away and the inner bark, which was used, was allowed to rot. The rotted fibers were then mixed with a paste-like plant which bonded the fibers together.

The early Chinese and Japanese beat the fibers by hand to separate them. As papermaking spread into Europe the method of beating fibers changed as water power and windmills were used to power stamping machines.

ARAB PAPERMAKING

The Arabs made paper from linen, substituting it for the bark of mulberry trees of China and the scrub plants of Japan. The Arabs permitted the wet linen to ferment before boiling it in wood ashes. The rags were then placed in cloth bags and suspended in a running stream. Initially the rags were beaten by hand. Soon after, a trip hammer device replaced hand beating. The Arabs are given credit for the development of wire drawing or screen mold making, which was later developed by the Europeans into the rigid screen mold.



As papermaking spread in Europe, many new developments took place. The demand for paper increased as more and more people were able to read and write. Many people had ideas on how to increase the production of paper.

EUROPEAN PAPERMAKING

In Europe the basic raw material was cotton rags. The rags were soaked in water, rolled into round balls, and stored to ferment slowly. This made for easier beating. The appearance of fungi on the cloth balls was a sign that the materials were ready for beating. After the rags were beaten in a stamping mill the fibers were washed in clean water.

The demand for paper soon outstripped the output of the beater or stamper. About this time an unknown papermaker in Holland invented a cylinder beater which today is known as the Hollander. "It was an oblong wooden tub rounded at both ends, in which revolved a solid wooden roll from the trunk of a tree. The roll was fitted with 30 iron knives."[5] The Hollander could produce more in one day than eight stampers could do in eight days. However, it must be said that the Hollander did not catch on in Europe.

5. Ibid.

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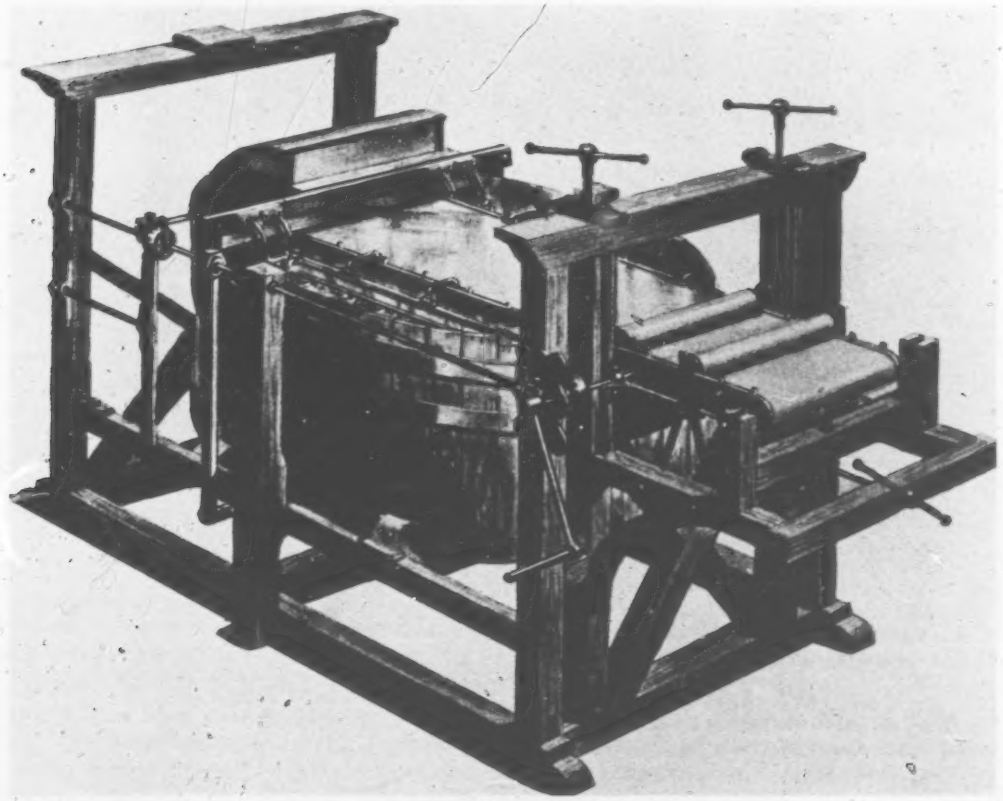
Early papermakers sized or coated their paper in a number of ways. Some dipped paper into animal size made from the parings or scrapings of hides. The Orientals used a thin coating of gypsum as well as starch. Others used agate or glossy stone to burnish or smooth the paper.



MACHINE REPLACES MAN

In 1798 paper production went from hand to machine. Nicholas Louis Robert, a clerk in a papermill, devised a machine that replaced hand dipping and produced paper in a continuous roll. He put several wire molds on a belt conveyor with a large tub underneath to catch the water. There was also a press to flatten the pulp. A paddle wheel flipped the pulp stock into the wire mold and the paper was formed in the first continuous sheet known to man. The paper was then cut into sheets and hung up to dry.

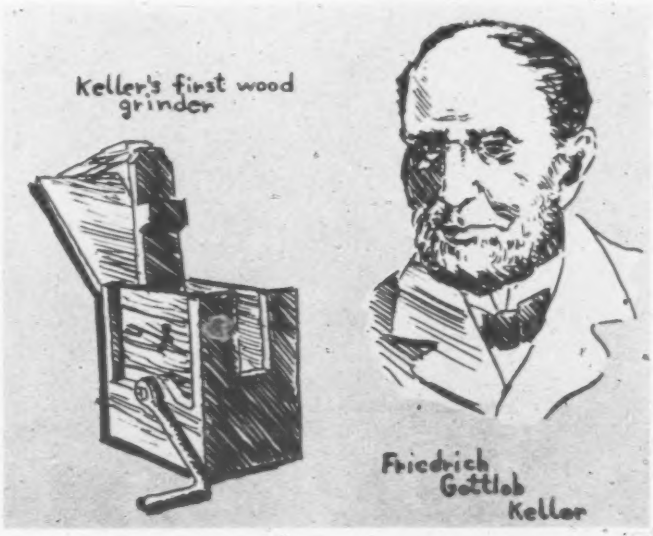
Nicholas Louis Robert later sold his patent to his boss, Leger Didot of Essonne, France. Didot took the drawings and a model of the paper machine to England where he interested Henry and Sealy Fourdrinier in the machine. The brothers gave their engineers the job of trying to make the machine work. By 1803 the paper machine was in working order. It could produce an amazing 35 feet of paper per minute. From that time on the wet end of the paper machine has been known as the Fourdrinier.

Two years after the Fourdrinier patent was granted in 1807, John Dickensen of London patented a cylinder covered with a wire screen. As the cylinder revolved in the vat of pulp, suction forced the pulp fibers to settle on the screen and become a sheet of paper. This wet paper was picked up by another cylinder covered with a felt blanket and then put in a drying room.

The mechanical aspects of papermaking had taken several large steps forward, only to be held back because of the shortage of raw materials such as rags. Many types of materials were being tried throughout the world. These included moss, hemp, straw, jute, green grass, cabbage stalks, pine cones and many more.

THE FIRST GROUNDWOOD PULP

In 1719, a French scientist, Rene de Reaumur, wrote, "The American wasps make a fine paper. They extract the fiber of common wood and teach us that one can make paper from fibers of plants without using rags or linen."[6] In 1840 Friedrich Keller, (Kellar), a German weaver, discovered that paper could be made out of wood fibers. He was watching some children grind cherry pits against a wet grindstone to make beads. Keller squeezed some of the wood fibers and they stuck together "Kellar with the aid of a mechanic, Voelter, devised a machine for grinding wood into small fibers. The groundwood fibers had to be mixed with rag to form the sheet."[7] The first quantity of paper made with groundwood pulp was produced in 1867 at the Columbia mill of the Smith Paper Company, Lee, Massachusetts.



PAPERMAKING ADVANCES

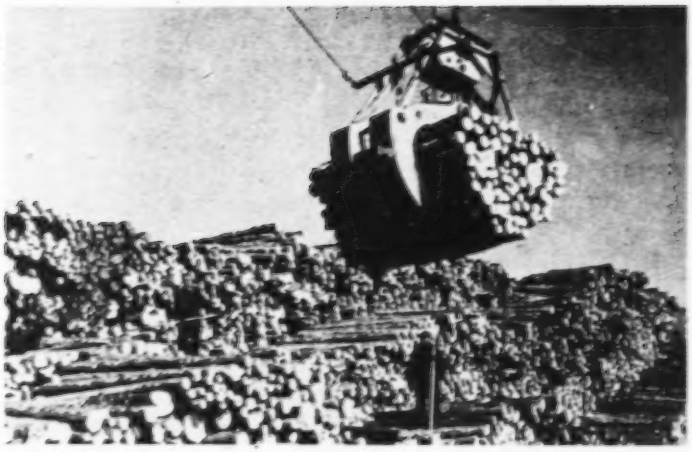
In the second half of the 1800's, papermaking was to make more startling advancements. The first experimenting with the chemical process of pulp manufacturing was begun in the 1850's. Chemical wood pulp was first made into paper in 1854 by Hugh Burgess of England. The paper was made at the Warren Mill in Maylandville, Pennsylvania. "The first pulpwood used in the United States for soda pulp was made from aspen (poplar) logs."[8] In 1830 a patent was issued to a Frenchman for a method of bleaching straw for papermaking by using sulphite of sodium. In 1865 an American chemist experimented on soft woods using sulphuric acid and lime. This resulted in the first American patent for a commercially useful process.

6. Paper, The Fifth Wonder, Ainsworth, Kaukauna, Wisconsin, 1959, p. 52.
7. A History of Paper Making, Kimberly-Clark Corporation, Neenah, Wisconsin, 1966.
8. Ibid.

However, it was not until 1874 that a Swedish chemist, Ekman, discovered a sulphite process that was a commercial success. "The first sulphite mill in the United States to operate successfully on a commercial scale was built at Alpena, Michigan in 1887."[9]

The development of soda pulp, groundwood pulp, and sulphite pulp processes were all important steps in the making of paper out of wood. The great papermill industry was spreading not only in the Eastern States but moving west into Ohio, Michigan and Wisconsin, and to the land of trees and rain in the Far West. Although the Oregon and California mills failed, mostly because of the shortage of rags, new mills replaced the old, all using wood for making paper. We were now in the paper age, with cheap paper and an abundance of it. Except for many mills converting from the soda process to the kraft or sulphate process in the early 20th century, the papermaking processes have changed very little.

9. Ibid.



CHAPTER
TWO

GROUNDWOOD PAPERMAKING TODAY

Wood is the main raw material for pulp. Pulp, in turn, is the raw material from which most paper, plastics, paperboard and many other products come. There are several processes for making wood pulp, all of which are very much alike in principle. "All wood is made up of the same basic parts; cellulose fibers, a glue-like binder called lignin which holds those fibers together, plus sugars, gums, resins, and mineral salts in lesser quantities."[1] The main task of the pulp mills is to separate the fibers from the lignin and rearrange the fibers into a desired pattern. This may be done either mechanically or chemically depending upon the end product and its requirements.

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1 The Story of Pulp and Paper, American Forest Institute, Washington, D.C., p. 6.

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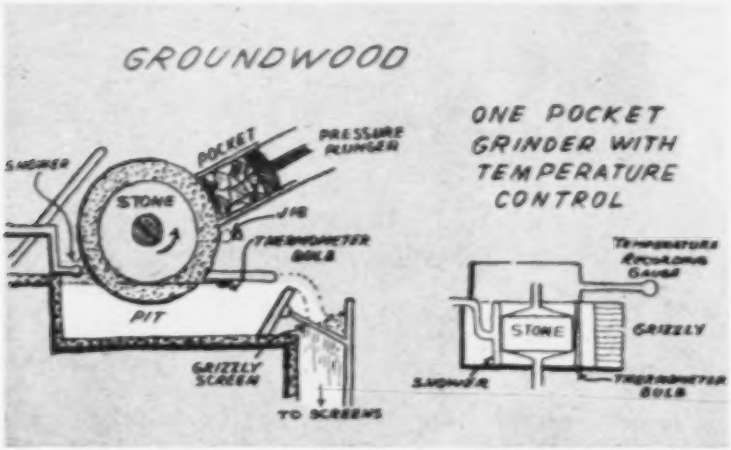
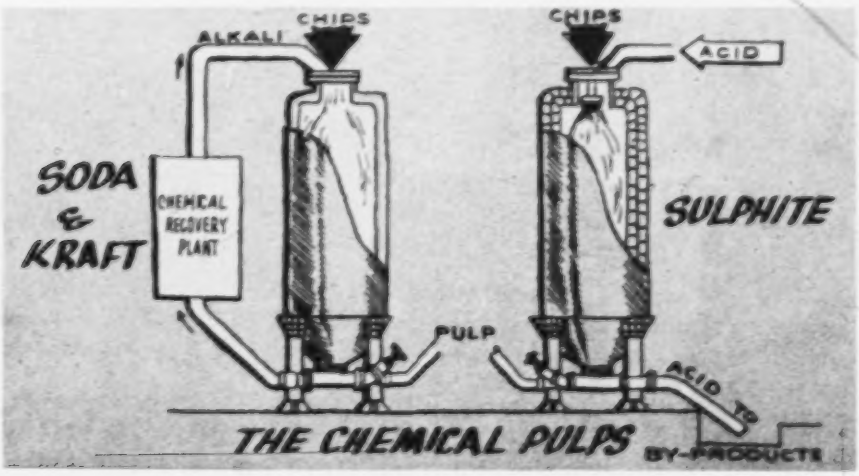
MAJOR PULPING PROCESSES

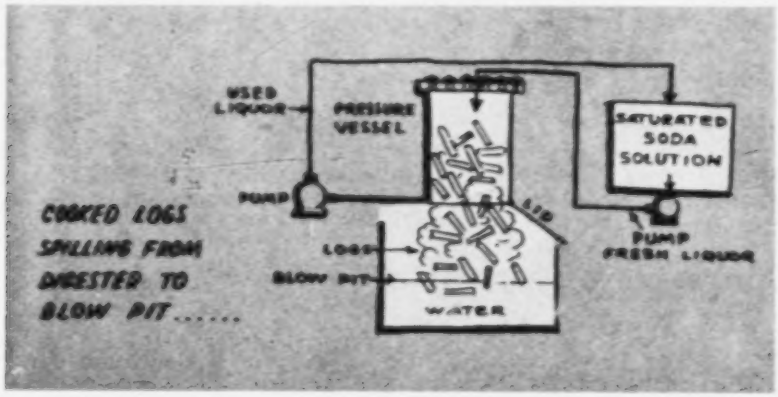
There are three major processes for making wood pulp. Mechanical or groundwood pulp is used to make 80-85 percent of our newsprint, which in turn makes up 20 percent of the paper used in America.



The two most common chemical processes used to make paper are sulphite and sulphate. Sulphite paper is noted for its fine texture and printing qualities while sulphate paper is noted for its strength.

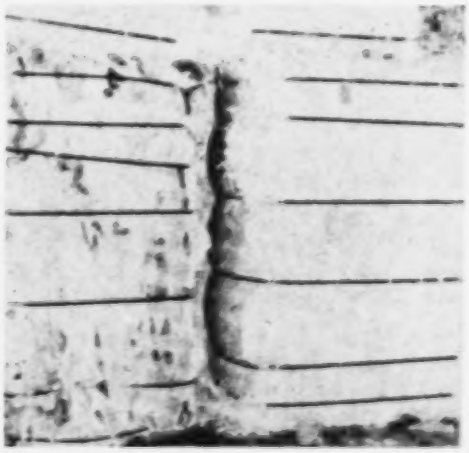


Another important but not widely used method is the semichemical or chemi groundwood process which is a combination of the chemical and mechanical methods. It is used mainly for the pulping of hardwoods and has many variations. Semichemical pulps are used to make stiff, resilient products such as corrugated paperboard, egg cartons and other products.



Another pulp used for paper is made from cotton scraps from textile mills or used cotton which is recycled. This pulp is made by breaking down the cotton fibers through the use of chemicals.

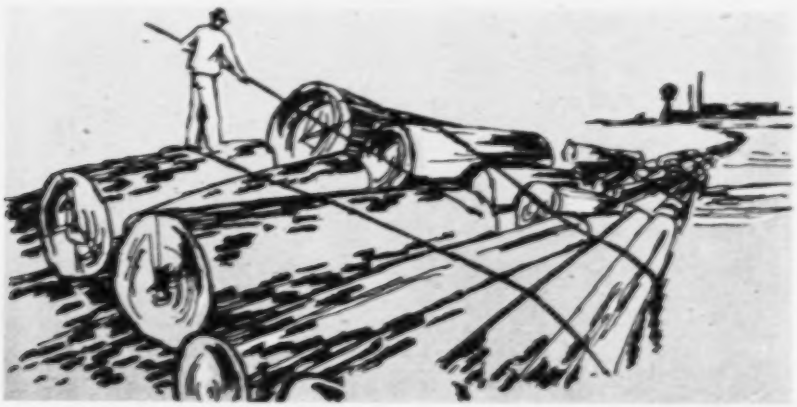
The final and newest method of making paper is the production of recycled paper. Used paper, other than most newsprint, which is made from groundwood, is de-inked, bleached, washed, beaten, and usually mixed with other pulp. In some cases the paper is made from 100 percent recycled paper. Recycled groundwood newsprint is usually used for making a strong paper usually brown in color.



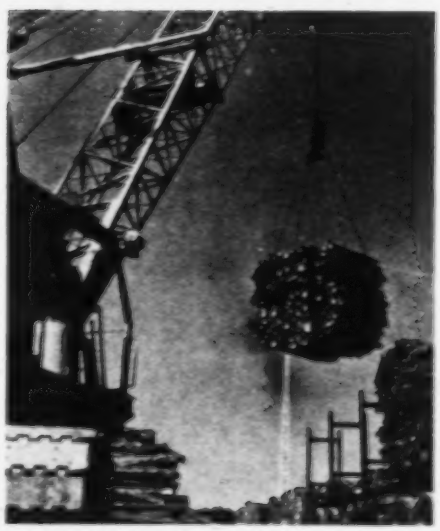
The process for recycling the paper is basically the same as the other processes. The paper is placed in a beater or mixer with de-inking chemicals. After it is mixed or beaten the pulp is washed, thus removing the ink particles from the pulp. The bleaching and cleaning operations are the same as for other pulp.

ARRIVAL OF THE LOG

Pulpwood logs arrive at the pulpmill either by rail or truck. In some parts of the nation, especially the South, logs are sometimes taken to the mill on barges or are floated in captive booms which are acres of floating logs drawn together by chains.



The logs are over four inches thick on the small end and eight feet long. They are unloaded by a CRANE OPERATOR who operates an electric or diesel powered crane. He maneuvers levers and pedals to move the crane and to control the boom height and direction of the load of logs. The logs are either stacked in the mill woodyards until needed or placed directly into the hotpond. In bigger yards there are more workers, most of whom are operating similar cranes or payloaders.



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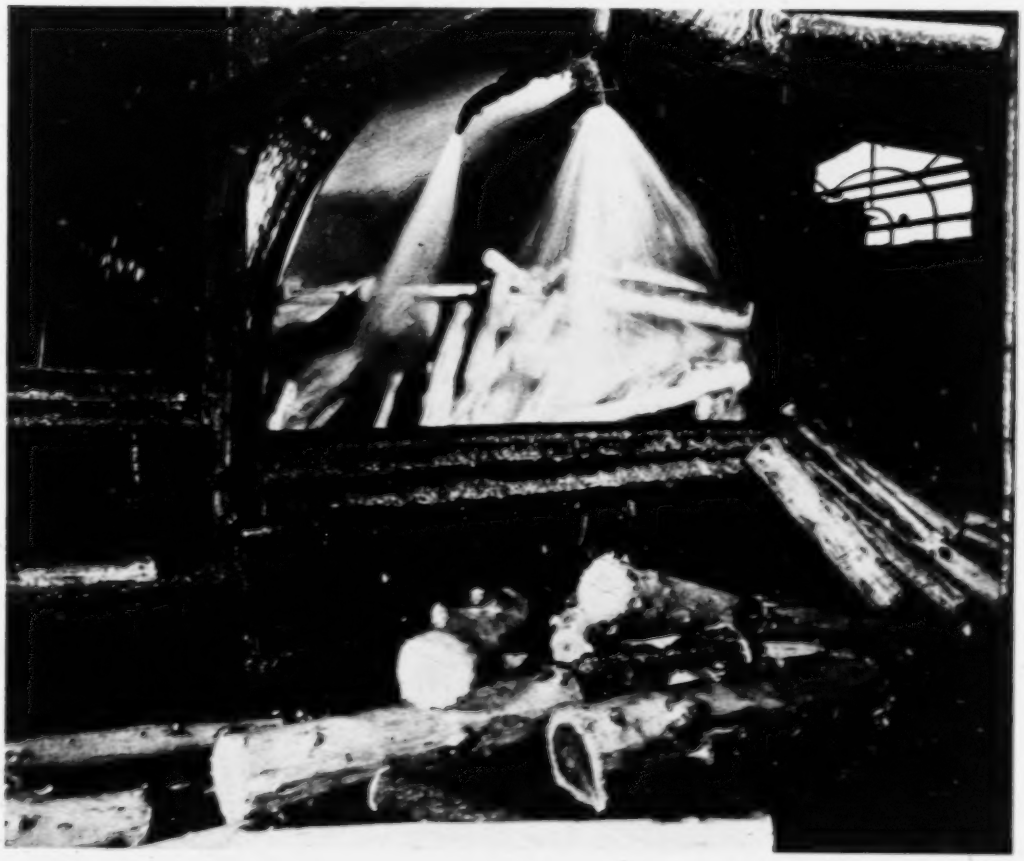
A payloader is a four-wheel drive industrial tractor with a scoop or claw-like attachment on one end. This is used to stack logs on smaller piles or to move logs in places cranes can't get to. The operating functions of the crane and payloader are basically the same.

POND MAN The hotpond is a rectangular-shaped pond 8-1/2 feet wide, six feet deep and 20 to 40 feet long. It is called the hotpond because the water is heated to help loosen the bark and to keep the water from freezing in winter. After the logs are dumped into the pond the POND MAN uses a pike pole to maneuver the logs onto a continuous chain conveyor at one end of the pond. A pike pole is a pole about five feet long with an aluminum or wooden handle and a steel hook attached to one end. Walking alongside the pond he maneuvers the logs onto the conveyor one at a time, making sure they are straight across the conveyor.

SLASHING In some mills the logs are slashed or cut into shorter lengths before being debarked. Here the SLASHER-MAN tends the slasher, which consists of one to three saws placed halfway up a wooden incline. A chain conveyor pulls the logs from the hotpond through the saws and onto a conveyor leading to the drum debarker.

DEBARKING

The logs are then dumped into a drum debarker. The debarker is a huge open-ended drum with steel ridges on the inside. It is 10 to 12 feet in diameter and 40 to 60 feet long. Overhead motors turn chain belts which go around the drum's circumference to revolve the drum. The drum is usually cradled or resting on a series of rollers for easier turning. It is open on the end where the logs enter and partially open on the end where the logs exit. The drum rotates approximately 6-10 times every minute with a log debarking time of about 20 minutes. The bark is carried away by conveyor and used for fuel, and the logs are sent to the chipper. The drum debarker is controlled by the DEBARKER OPERATOR. He operates controls to open the end of the debarker to let out debarked logs. He also controls the amount of logs in the debarker and the length of debarking time. These machines are all operated electrically and controlled from a panel board control station.



INSPECTING

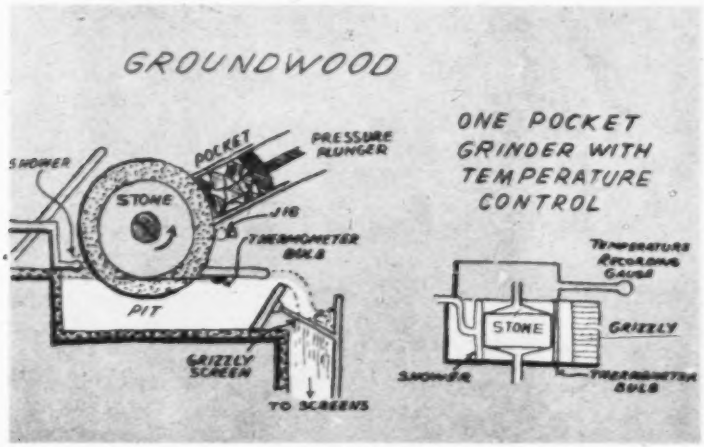
As the logs leave the drum debarker, they fall onto a moving conveyor which takes them to the grinding machines. As the logs move along on the conveyor a WOOD SORTER or WOOD INSPECTOR visually checks each log, insuring that more than 90 percent of the bark has been removed. Any logs that have more than 10 percent of their bark remaining are removed from the conveyor with a pike pole. The logs are then rerun through the drum debarker.

Block Piler

THE GROUNDWOOD PROCESS

After the logs pass the INSPECTOR they are moved to the grinder. The grinder is nothing more than a machine in which the logs are pressed against a large, revolving, wheel-shaped grindstone. Steam and water are added to aid in the grinding and cooling of the wood and stone. Today, grinders are either automatic or semiautomatic. Where semiautomatic machines are used, BLOCK PILERS place logs in the machine hoppers. A hydraulic plunger is situated over the logs and presses the logs sideways against the width of the stone. This is done in order to get the correct grain direction of the wood fibers.

This department is usually run by the HEAD GRINDER OPERATOR. His main job is to direct the workers in feeding the grinders and in the adjusting of the machines to obtain pulp of specified consistency. He examines the pulp to determine the length and thickness of the fibers. Laboratory reports are read and machine adjustments are made according to lab recommendations. The GRINDERMEN do the actual operating of the grinders. A slide gate is opened on the hopper and logs are piled into the chute. A lever is pulled and a hydraulic piston lowers to press the wood against the grindstone. The water pressure and steam pressure are controlled through the use of gages and valves.



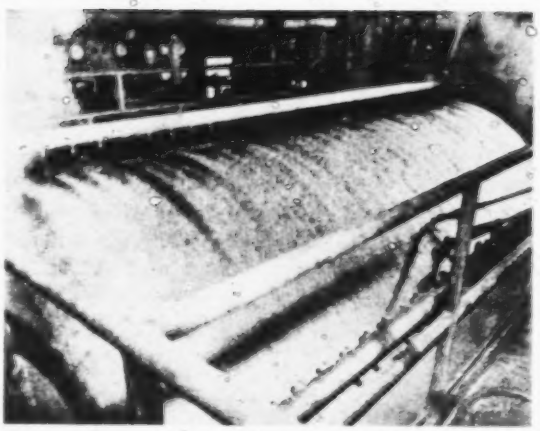
Where automatic grinders are used, the logs are taken to the grinders by conveyor. The GRINDER OPERATOR operates electric controls to divert the logs off the conveyor into a chute or hopper of the grinder. A hydraulic ram is positioned over the logs and the correct pressure applied. One worker is usually in charge of the automatic grinders.

SCREENING THE PULP

The pulp is now further diluted by water and sent to a series of screens for removal of sand, debris, slivers, and fiber bundles. The worker in charge of this operation is generally known as the SCREENMAN or SCREENTENDER. His main duties are to regulate the flow of pulp and water into the screening machine and to adjust the spray of water used to clean the pulp and separate it from undesirable materials. Samples are taken from the screen and analyzed by the laboratory. The SCREENMAN washes the screens clean of all unwanted fibers and debris between batches of pulp. This is done with a high pressure water hose.

WASHING THE PULP

After screening, the pulp is pumped to the washing and bleaching station. The washers are usually a series of revolving drums covered with wire mesh with water sprinklers located across their tops. The pulp is washed and formed into thick sheets as it passes over the drums. As water is sprayed on the revolving drum, a vacuum suction draws the liquid or water through the mesh and drops it to a recycling apparatus. The pulp is next pumped to the bleaching section of the mill.



BLEACHING

In order not to seriously degrade the strength of the wood pulp, the impurities, mostly lignin, are removed in a series of stages. There may be as many as ten stages with "either a different chemical, or a repetition of the same chemical being used in each succeeding stage."[2] After each stage chemicals and impurities are washed away with clean water. Some of the most common chemicals used are chlorine, caustic soda, and calcium hypochlorite. After the pulp is washed, it is pumped to towers or oblong tanks where chlorine gas is added to the constantly agitated pulp. After the chlorination is complete the now soluble impurities are removed on a vacuum suction washer. In the next stage, caustic soda and steam are added to further dissolve impurities. The pulp is now left to soak in the solution for about an hour before being thoroughly washed with clean water over vacuum washers. The next stage is the whitening stage where calcium hypochlorite is added, followed by washing with water. This may be repeated any number of times until the desired whiteness or brightness is obtained. The worker in charge of the washing and bleaching process is usually called the BLEACHER MAN. His job in this highly automated process is to start and stop pumps and to adjust the flow of pulp, chemicals, and water in their respective operations. Valves are adjusted, agitators are stopped and started and necessary adjustments are made according to work order specifications. Samples are taken to the laboratory for testing. In many mills the BLEACHER MAN makes a series of non-technical brightness tests of the bleached pulp. The bleached pulp is now pumped to the beater room.

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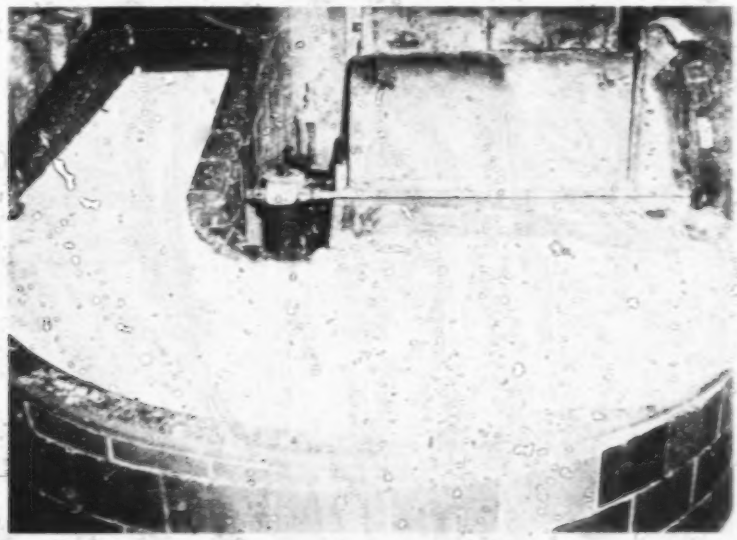
2 Paper, The Fifth Wonder, Ainsworth, Kaukauna, Wisconsin, 1959, p.107.

BEATING THE PULP

In the 17th century the "Hollander" was invented as the first beater of its kind. In principle it has not changed at all. It still is an elongated tub divided in the center to produce a channel running around the outer edge, much like a race track. A roll or cylinder with steel bars running the length of the roll rotates on the bottom of the tub or vat. Under the roll is a steel plate also with steel bars running the length of the plate and crosswise in the tub. The pulp passes under the rotating roll and the pulp is abraded or rubbed between the steel ribs of the roller and the bottom plate. To produce different paper characteristics, different settings of the roll are necessary.

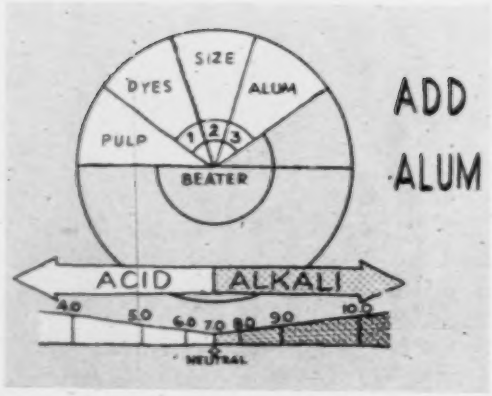


The BEATER MAN or BEATER ENGINEER controls the beater settings and flow of pulp. The beater settings are changed simply with the use of a few wrenches. He visually checks the pulp for consistency and size of fibers. Samples are sent to the laboratory and necessary adjustments made according to laboratory recommendations.

It is at this stage of papermaking that the dyes, sizing, alum, and other ingredients are added. Size comes from the Latin verb "assidere."[3] It means to set in place. In the pulp, used internally, size coats the fibers and adds water resistance to the finished paper. Dyes and pigments are used to color the fibers to obtain a desired effect. Both differ in the manner in which they color the fiber rather than the effect obtained. Both are measured in specific quantities and mixed with the pulp as it is being beaten. After the dyes and pigments are thoroughly mixed in the beater, the size is added according to the work order for that particular batch of pulp. Blotting paper is unsized. Butcher papers are hard sized in order to resist the penetration of meat juices.

3 Ibid, p. 140.

ALUM ADDING The next process is the addition of alum. Alum is used to set the size and dyes. Alum also controls the pH or acidity of the pulp. "Deviations from the specified pH will result in variations in sizing efficiency and sheet color."[4] The adding of this and all other additives is usually done by the COLORMAN or COLOR MIXER. At the start of each shift he determines the amount and kind of color to be mixed. He then measures the correct amount of powdered dye and screens and mixes it. Alum is mixed with water according to work orders with a sample going to the laboratory for testing. Clays are mixed with water and other ingredients and mechanically agitated in vats or tubs, as are the alums and dyes. The mixing procedures vary from pulp mill to pulp mill although the basics are the same. This operation may be performed by one or more workers depending on the size and production of the plant.



REFINING THE PULP After the pulp stock is beaten and the necessary additives are mixed with the pulp, it is passed through a refiner. A refiner is a machine, usually cone shaped, which causes the fibers to be rubbed between a stationary bar and a steel bar which is traveling at a high speed. This causes the bundles of fibers to break up and in turn produces a stronger more uniform sheet of paper. The worker in charge of this machine is known as the REFINER OPERATOR or JORDAN MAN. He adjusts the machine to insure that the pulp fibers meet specifications. Samples are taken to the lab and machine adjustments made in accordance with the lab report.

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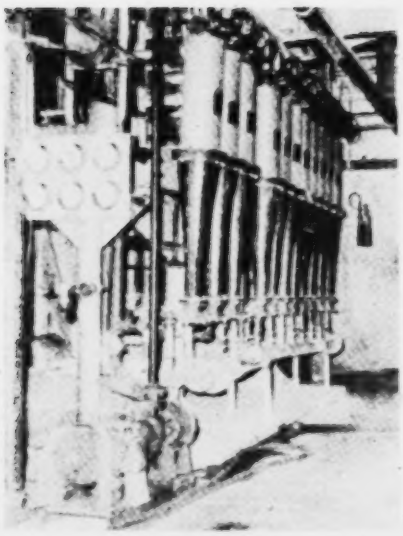
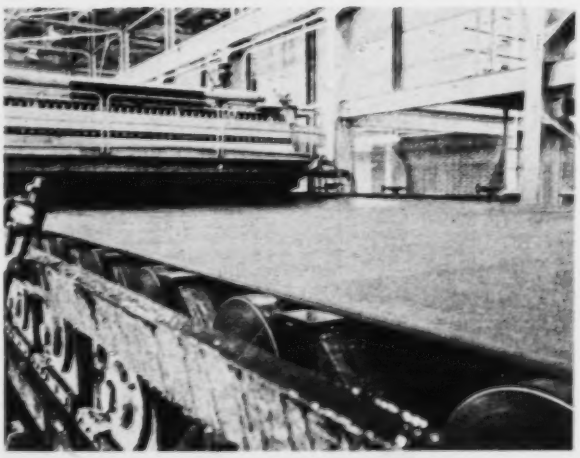
4 Ibid, p. 141.

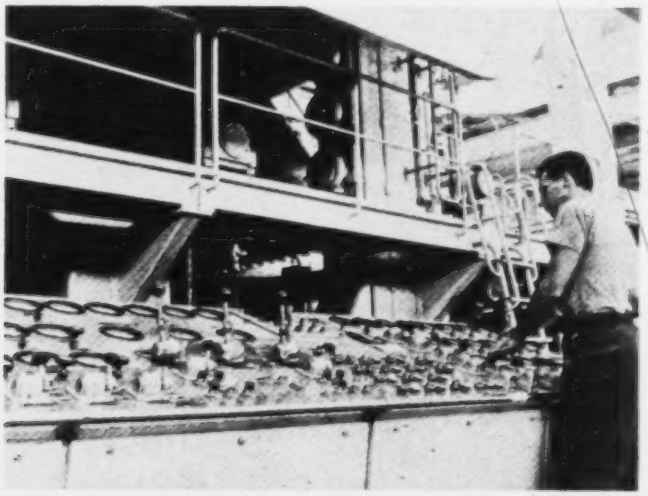


After refining to the desired degree, the pulp is pumped to the final cleaners. The stock or pulp solution is still very much diluted with water. The stock consists of 100-150 pounds of water for every pound of wood pulp. The cleaners are usually the narrow vertical type which operate on the same principle as the cream separator used in the past by farmers. The pulp solution is spun in the cleaner, and the dirt, which is heavier than the fibers is thrown out. After cleaning, the stock is pumped to a paper machine or storage chest. In many cases the JORDAN MAN or REFINER OPERATOR operates the cleaners as well as the refiners.

THE WET END At one end of the paper machine is a large box with a narrow opening across the bottom of the box. Through this narrow opening the pulp stock flows on to an endless wire screen or conveyor moving from 150 to 1550 feet per minute. The pulp is now over 99 percent water. As the bronze wire belt is vibrated sideways and moves away from the box, the water drains through the openings in the mesh leaving a wet mat of paper.



The runoff water takes some of the wood fibers and additives and flows from the paper machine to an area called the save-all area. Here the SAVE-ALL OPERATOR tends a machine which salvages some of the suspended wood fibers from the "white water". This is done by having a screen-covered cylinder with a vacuum inside revolve in a tank of white water. A blade scrapes the fiber deposit off the cylinder and the fibers are pumped into storage chests. Residue of the white water which contains dyes, chemicals, and clays is also pumped into storage chests to be used later.

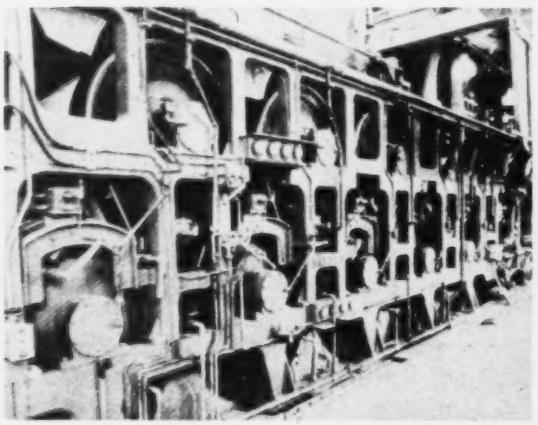


Machine Tender

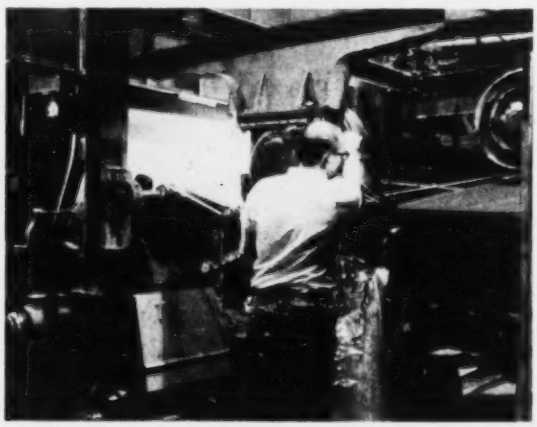
The end of the paper machine from which the white water comes is called the Fourdrinier end, named after the Fourdrinier brothers. The worker in charge of this end of the machine is called the MACHINE TENDER. He adjusts the volume and speed of the pulp flow as well as all functions of the machine. Samples are taken to the lab and necessary machine adjustments made according to the lab recommendations. The MACHINE TENDER gives instructions to other workers operating paper machine sections which dry, size, calender and wind the paper. He also adjusts the pressure of rollers on the pulp sheet after it leaves the wire screen. After the pulp sheet is scraped off the wire and passed between felt rollers, it is passed over steam-heated dryers.

DRYING THE PAPER

The sheet now contains between 60 percent and 70 percent water. The dryers usually consist of a series of rotating metal drums on which the wet paper is held by endless felts. The temperature is controlled to suit the type of paper being made. This section of the paper machine is controlled by the BACKTENDER. When starting a roll he threads the continuous sheet of paper between and over the rollers. There are usually two or more dryer sections, each working independently of the other, and each at a slightly different speed. This is necessary because the sheet expands slightly at each dryer. The BACKTENDER adjusts the speed of each dryer. In the paper mill this is called "adjusting the draws."[5] After the paper is dried to about five percent moisture content, it moves to the size section or calender section depending on the type of paper being produced.



Dryers



Backtender

SIZING

A variety of coatings or sizes may be used in order to obtain the desired finish or surface on the paper. For fine writing paper, usually a solution of cooked starch is showered on both sides of the paper. The effect of the starch is the same as when starching shirts; it gives a little more stiffness and flattens the fibers on the paper's surface. Other coatings are used to give different effects. After the paper is coated, it is passed between rollers to squeeze out any excess starch. This sizing operation is highly automated and is usually part of the duties of the BACKTENDER, or 2ND or 3RD HAND, depending on the particular company.

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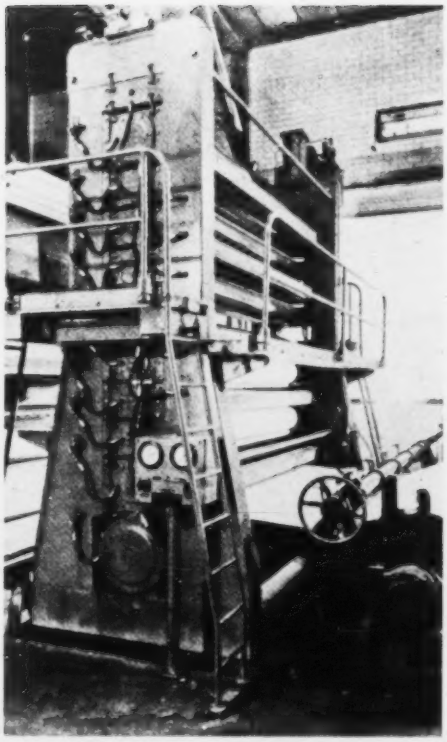
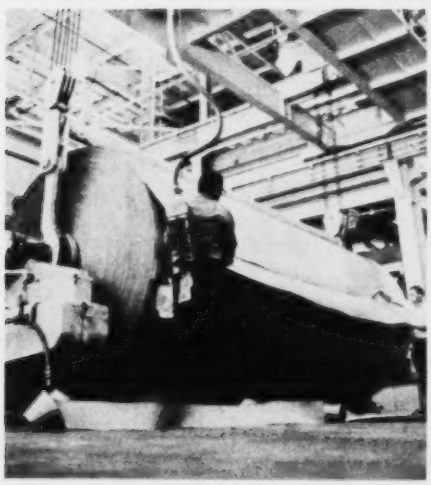
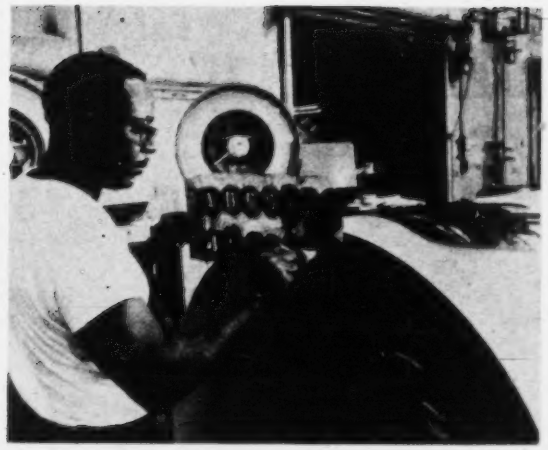
5 Ibid, p. 157.

CALENDERING After the paper is coated on the paper machine its final finish is applied by the calender stack. The stack consists of a set of horizontal steel rolls between which the paper is passed to increase its smoothness, gloss, and density. The paper comes from the calender stack and is wound onto a large reel, sometimes called a jumbo roll. The tending of the calender stack and the operating of the winder are done by the 3RD, 4TH or 5TH HANDS, depending on the company titles. The winding of the jumbo roll requires the positioning of a cardboard core on a shaft and the tightening of clamps. The full roll is stopped and a new roll is started on the core through the use of push button controls. The roll is examined as it is being wound as well as when it is completed. The roll is moved by an overhead hoist or industrial truck to the rewinding station.

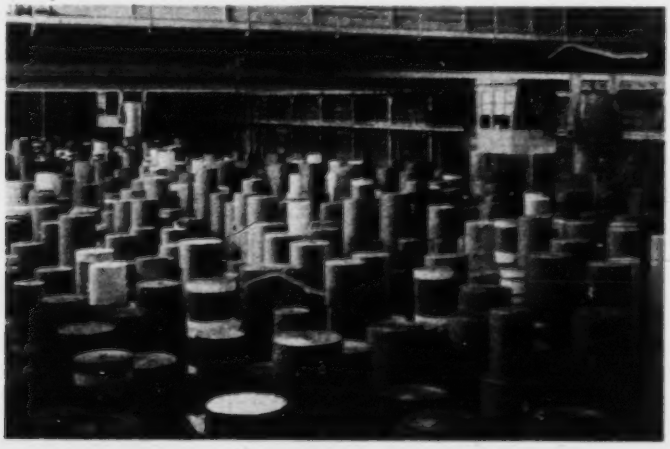


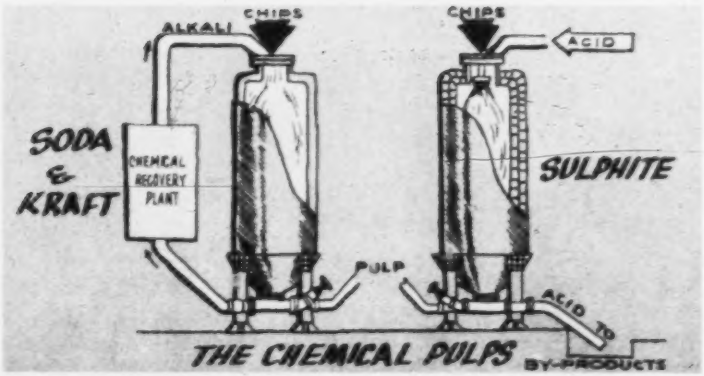


REWINDING At the rewinders the rolls are unwound and passed through slitters or cutters which trim the paper to the desired dimensions. The trimmed sheet is then rewound onto a reel and is ready for packaging. The rewinding and trimming machines are controlled by the REWINDERS.



The trimmed rolls are then covered with heavy shipping paper. This operation may be done by hand or with the use of wrapping machines. After shipping paper is placed around the roll the ends are glued on the roll. The sides are then glued to protective cardboard caps either by hand or hydraulic heated press. Wooden plugs are then inserted in the core to prevent it from being crushed. The roll is labeled, weighed and sent either to the warehouse or to the loading dock for immediate shipment. The workers performing this operation are usually called PLUGGERS.





CHAPTER
THREE

CHEMICAL AND RAG PAPERMAKING TODAY

When speaking of different pulp processes we must understand that the differences are mostly concentrated only in a short segment of the entire papermaking process. The differences take place from the debarked log to the washing and bleaching of the pulp. Before and after this process segment, most papermaking functions are basically similar.

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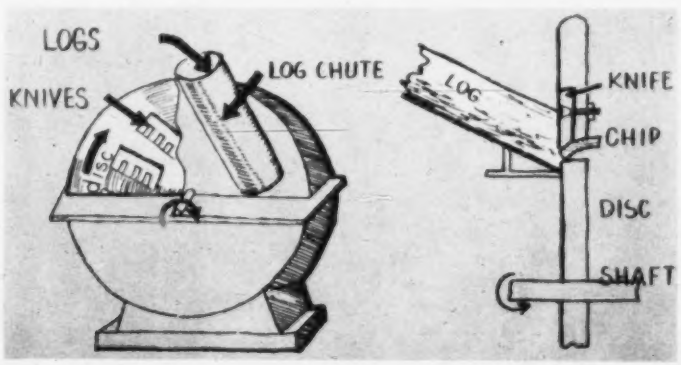
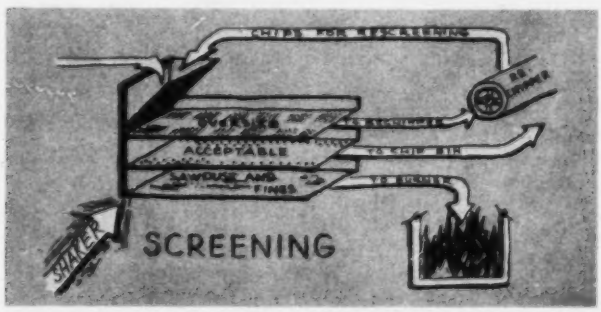
LOG TO CHIPS

The sulphite, sulphate, and soda processes all use wood chips. After debarking, the logs are sent by conveyor to a chipper. The chipper consists of a rotating disc on which knives are mounted. The pulpwood logs are fed into the chipper which quickly reduces them into chips about 1/8 inch thick and 3/4 inch square. It is important that the chips be of uniform length in the grain direction of the wood. This is because the chemical solution in which the chips are to be cooked penetrates the wood 13 times faster in the direction of the grain than it does across the grain. The person in charge of this operation is called a CHIPPERMAN. His main job is to watch for logs jamming in the chipper. Jammed logs are lifted out by use of an electric overhead hoist and sawed to smaller dimensions with a chain saw.



SCREENING THE CHIPS

The chips are conveyed by a belt to the screening machines. Here, vibrating screens remove slivers, sawdust, dirt, knots, and oversized chips from the chips to be used for pulp. The SCREENMAN operates the conveyors, screens, and blowers in the screening process. The screened chips are then conveyed to the digesters or storage bins and the waste is sent to the boilers to be used for fuel.

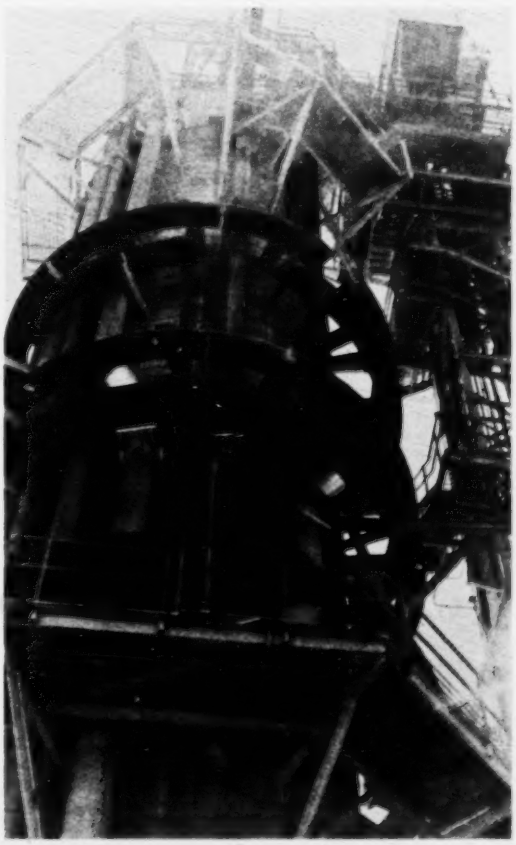


WOOD COMPOSITION

A softwood log is made up of various substances. Fifty percent of the log is cellulose, 30 percent is lignin, a glue-like material which holds the fibers together, and 20 percent is carbohydrates, resins, and fats. The cellulose, which eventually becomes paper, is made up of fibers finer than human hair. It is the lignin which holds these fibers together. In chemical pulping the cellulose fibers are separated by dissolving the lignin binder in chemicals. This is done in the digester.

THE DIGESTERS

The digesters are basically pressure cookers. They may be either the tumbling, rotating, or stationary type. The chips, after being screened, are conveyed to the top of the digester and dumped in along with various chemicals. In the sulphate process the chemicals usually consist of sodium compounds of white liquor and black liquor, which are once-used sodium compounds. The digester is closed and steam turned on. In the stationary digester the liquor is drawn from the bottom and sprayed over the top in a continuous action. As the steam and heat are applied the chemicals go to work softening and dissolving the lignin binder. The DIGESTER COOK and his HELPER operate and control the digesters.

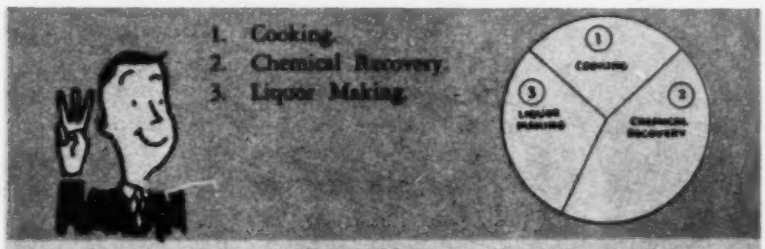


Digester

When the cooking is completed, the BLOWPITMAN opens a valve on the bottom of the digester. The softened chips, and now all-black liquor, are blown to the top of a tank and against a steel plate, smashing the chips into millions of cellulose fibers.

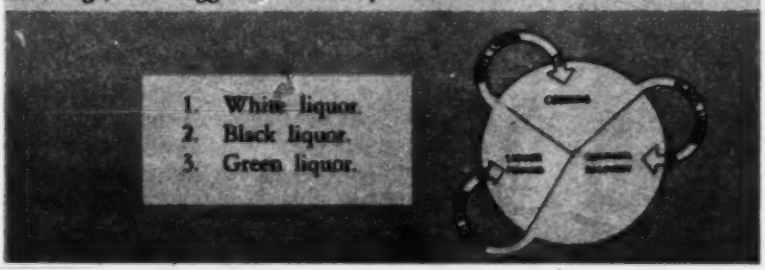
SCREENING AND WASHING — After this process the chips are conveyed to a series of vibrating screens tended by the SCREENMAN. Water is sprayed on the cooked fibers washing any sand, uncooked fibers, and other refuse into receiving chests. After the screening operation the pulp is pumped to the washers. From the washers to the final roll of paper, the papermaking process is the same in nearly every aspect in all mills.

SAVING THE CHEMICALS — One of the advantages of the alkaline (soda and sulphate) process described is that the chemicals used for cooking the wood chips are reclaimed and reused. This is done by a fairly simple process. In recovering the chemicals, saltcake (soda ash in the soda process) is added to the used black liquor, thus replacing the chemicals lost in cooking. The liquor is then burned in furnaces to remove the lignin from the liquor. The ashes are dissolved in water and lime is added to change the liquor back to its original white color. Thus the cycle is completed with virtually no loss of cooking chemicals. The men who control this recycling process are known as LIQUOR MAKERS, FURNACE OPERATORS AND HELPERS. The workers' main tasks consist of reading various gages and charts, adjusting valves, and controlling pumps and motors according to specifications.



Three Liquors

The chemical solution, or liquor, changes chemical composition as it circulates from stage to stage. The pulpmaker's monikers for the liquor, in each stage, were suggested to him by their colors.



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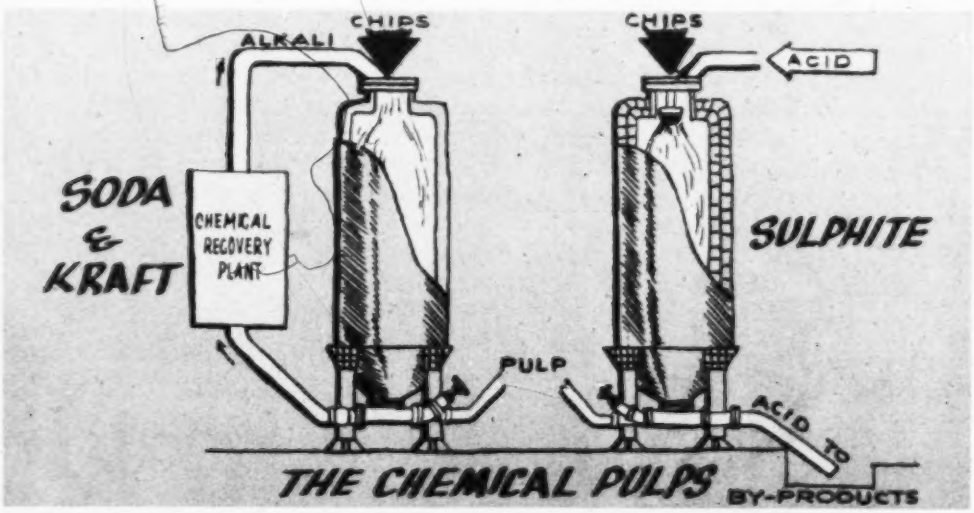
THE SULPHITE PROCESS

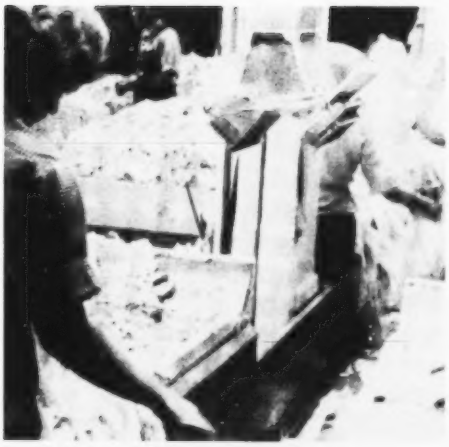
The main difference between sulphite and sulphate pulp is that the cooking liquors of the sulphate process are alkalis while the sulphite liquors are acids. The sulphite process is a two stage process; liquor making and cooking. The acid or sulphite cooking liquor is made by burning sulphur to produce sulphur dioxide gas. This gas is combined with water and limestone to produce the cooking liquor. An ACID MAKER is in charge of this operation. The digester is lined with an acid-resistant brick. The chips are put in the digester, the cooking liquor added, and the cooking begins. From here on, the processes are basically the same as in the sulphate process.



COTTON FIBER PULP

The last but not least important process is the making of cotton or rag pulp. This pulp is used to make some of the finest papers available. The "rags" that are used aren't really rags but trimmings and cuttings from textile mills. In most cases, only cotton rags or cuttings are used.

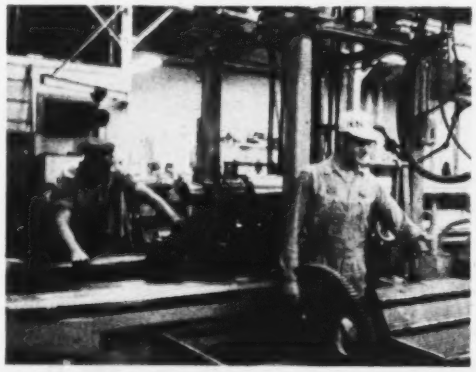
SORTERS The rags are brought to the mill in large bales. The bales are brought to the rag room where COTTON SORTERS and HELPERS carefully sort the trimmings. The rags are inspected by an INSPECTOR or by the SORTERS to make sure no foreign material such as paper clips and buttons are in with the rags. The rags are also inspected to verify that only those of the right color, quality, type, and condition are used. From the rag room they are conveyed to the cutters.



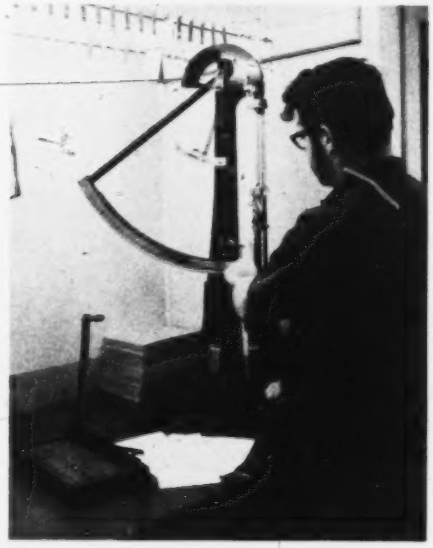
CUTTING THE RAGS The RAG CUTTER feeds the rags into a cutter which cuts them to a desired size. Usually he also has the task of removing the dirty dust filters and replacing them with clean filters. After being cut to the desired size, the rags are conveyed to the digesters or pressure cookers. The rags are cooked in an alkaline solution much the same as wood is cooked in the sulphate process. After cooking, the rags are washed and bleached in much the same manner as in all processes. At the beaters, woodstock fibers are blended with the cotton fibers at a 25, 50, or 75 percent ratio. The woodstock is made from dried pulp called wet lap which is shipped from pulp mills producing woodstock pulp. The worker in charge of reducing the wet lap or dry sheets into pulp is usually called a PULPER or REPULPER. From this point on in processing, all paper is made in the same manner.

We have discussed the jobs found in the most common pulp and papermaking processes used by today's mills. In addition to the workers involved in the actual paper and pulp making there are many others without whose skills the paper mills could not function. The MOTOR MECHANICS, ELECTRICIANS, MILLWRIGHTS, CARPENTERS, OILERS, PAINTERS, MACHINISTS, PIPEFITTERS, SHEET METAL WORKERS, and LABORERS all play vital roles in the papermaking processes. The MOTOR MECHANIC'S main task is to keep all of the many electric motors in top running condition. The MILLWRIGHT'S main duties are to install and maintain all of the paper and pulp making machines.

The MACHINIST'S main tasks are the fitting, assembling, and repairing of the many parts, mechanisms, tools and machines. The LABORERS work in various warehouse, storeroom, plant service, and maintenance activities. In general the LABORERS are associated with the receiving and shipping of the many materials used and products made in a paper mill.



MACHINISTS



Paper Tester

In addition to the nontechnical jobs, each paper company has special technical jobs and a special technical department. Some of the most common plant titles of the personnel in these technical departments are; PRINT TESTER, PAPER TESTER, QUALITY TESTER, COATING TESTER, and LABORATORY TECHNICIAN. The main task of these people is to test and examine samples of paper and pulp for defects and conformance to specifications in accordance with quality control standards. These jobs do not necessarily require a college education, depending on the company policy and the job.

However, all of the companies have college-degreed personnel working on ways to improve paper, pulp, and the surrounding environment.

CHAPTER
FOUR

CAREER OPPORTUNITIES

A career in the paper and pulp industry can be yours with either very little formal education or with a college degree, depending on where your interest lies. Little formal education is required of production workers although a high school education is preferred. However, at the management and technical end of the career ladder, a college degree is needed. Technical jobs include LABORATORY TECHNICIANS, CHEMISTS, and BIOCHEMISTS.

Currently, there are eight universities in the nation offering the undergraduate degrees in paper and pulp making needed for entering the technical jobs. Two of the universities, Lawrence, and the University of Wisconsin, Stevens Point, are located in Wisconsin. The Institute of Paper Chemistry, located in Appleton, Wisconsin, is one of six institutes or universities offering postgraduate degrees in the paper and pulp field. To qualify for admission to the Institute of Paper Chemistry, one must have had various courses in chemistry, mathematics, and physics during college. The table at the right gives the course requirements and electives for a paper science major at the University of Wisconsin, Stevens Point.

THE PULP AND PAPER CURRICULUM

	Credits Sem. I	Sem. II
Freshman		
Chemistry 105 or 107	5	—
Chemistry 106 or 108	—	5
Mathematics — Calculus I, II	4	4
English	3	3
Elective	3	3
Intro. to Pulp & Paper	1	
Sophomore		
Organic Chemistry	4	—
Quantitative Chemistry	—	4
Mathematics — Calculus III	4	—
Economics	—	3
Physics 130, 211	3	4
History	3	3
Communication	2	—
P&P 090 — Summer Mill Experience		
Junior		
Physical Chemistry	4	—
Physics 212	4	—
Electronics	—	1
Polymer Science & Paper Coating	—	3
Wood & Pulping Chemistry	—	3
Wood Technology	—	3
Plant Physiology	4	—
Elective	3	3
P&P 091 — Summer Mill Experience		
Senior		
Pulping, Bleaching & Recovery	4	—
Chemical Engineering	3	3
Paper Machine Evaluation & Properties of Paper	—	4
Computer Programming	2	—
Numerical Analysis	—	3
Limnology	3	—
Pulp & Paper Seminar	1	1
Elective	3	3

Today's papermills are highly mechanized which increases the number of machine tending and operating jobs and decreases the number of physical labor jobs. In today's mills, heavy objects, such as logs, rag bales, and rolls of paper are almost all moved by mechanical means. However, there are times when it is necessary to lift various mill apparatuses and materials weighing up to 100 pounds. The WINDERMAN or WEIGHERS must occasionally exert forces of up to 100 pounds when pushing or rolling jumbo or trimmed rolls of paper. All of the personnel working or operating a paper machine must occasionally climb upon the machine and stoop, kneel, crouch and/or crawl when threading a new sheet of paper over and between the rollers. The use of hands and fingers is a necessity for almost all production workers in a mill. However, minor handicaps, such as the absence of some fingers or toes, do not prohibit a worker from doing his job to full capacity. Normal vision or vision corrected to normal is required of all employees. The COLORMAN cannot be color blind nor can any of the INSPECTORS or LAB TECHNICIANS. CRANE OPERATORS, INDUSTRIAL TRUCK OPERATORS, and other workers who operate material moving equipment must have normal depth perception.

ENVIRONMENTAL CONDITIONS Work in a papermill varies from extremely cold to very hot. The PONDMAN works outside in an unprotected area throughout the year. Mills located in the Northern States sometimes have a roof or overhead protection for the people working the pond or chain conveyor. Those working on the dryer end of the paper machine or on separate dryers must work in hot and humid surroundings. The floor area directly around the paper machine is sometimes wet from the overflow or spray from the runoff water extracted from the pulp.

The areas around the paper machine and drum debarker are very noisy, which makes normal conversation an impossibility. In plants which use a chipper, the noise level is also at a point which makes normal conversation impossible.

A paper and pulp mill is an area of many potential hazards. However, due to the many safety precautions and devices used, the accident rate is held to a minimum. Almost all the workers wear safety shoes. In many cases the company pays for all or part of the cost of the shoes. Safety glasses are worn wherever there is a danger of any possible eye injury. Aprons and gloves are worn as necessitated by the job.

The atmospheric conditions differ from plant to plant depending on the pulp process used. The sulphate or kraft pulp process has the most odor of any process but causes less water pollution than the sulphite because the chemicals are recycled. The odor smells like sulphur and comes from the making of sulphuric acid used for cooking the chips. Most every mill is well ventilated and kept extremely clean.

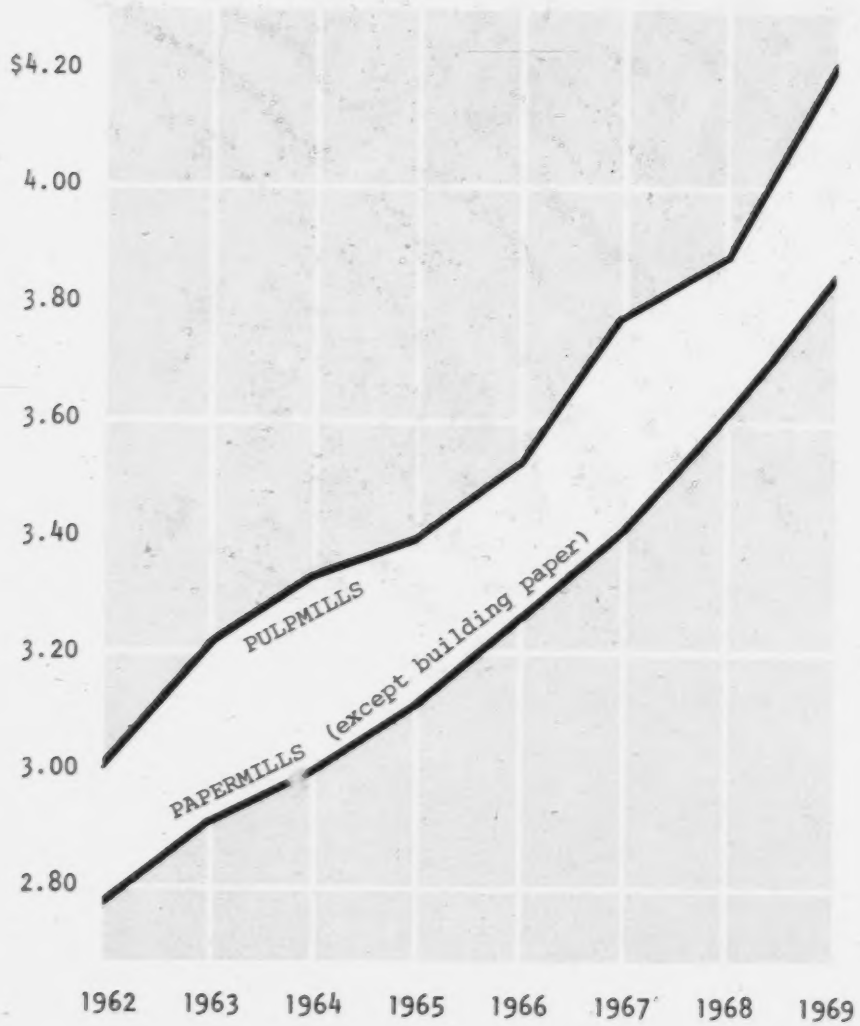
PAY AND PROMOTION

Average hourly earnings in the paper and pulp mills advanced eight percent in 1970 and are now at about $4.00 per hour nationally. This rate of pay is 26 percent higher than the average earnings in the nondurable goods industry group in which the paper and pulp industry is classified. Total employment of production workers increased only slightly. From 1958 to 1967 pulp mill employment increased from 11,450 to 12,000 while paper mill employment increased from 109,266 to 110,000. Upon entering employment in a pulp or paper mill, one usually starts as a CLEANER or LABORER. In the majority of mills a vacancy is filled by the qualified applicant with the most seniority in the department which has the vacancy. If no one in the department wants the job it is company-posted and offered to the applicant with the most seniority.

TRENDS

Americans are among the best informed, best nourished, best housed, and best dressed people on earth. Much of this is possible because we have adequate quantities of pulp and paper, and our continuing research and technical knowledge promise to keep them so. Because we have a wide variety of pulp grades, strengths, colors, and fiber lengths available for blending in many combinations, more new products are constantly being produced. By treating paper with wax, asphalt, polyethylene, starch, and other materials, more moisture-proof papers are being produced, including many types of paper containers used for liquids.

The United States exported 2.8 million tons of paper and paperboard valued at 530 million dollars in 1970. A five percent gain is anticipated in 1971. The production of pulp and paper has increased 850 percent in the past 50 years. It is now one of the leading industries in the United States and will probably continue to be a significant source of jobs for many years.



HOURLY WAGES
(NATIONAL AVERAGE FOR
PRODUCTION WORKERS)

Information source: Industry Profiles 1958-1969, U. S. Department of Commerce

JOB INDEX

Plant Title	Page	D.O.T. Title[1]	D.O.T. Code[1]
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Beater Engineer	23	BEATER ENGINEER	530.782-010
Beater Man	23	BEATER ENGINEER HELPER	530.885-010
Biochemist	37	BIOCHEMIST	041.081-030
Bleacher Man	22	BLEACHERMAN, PULP	533.782-010
Block Piler	20	LOADER, MAGAZINE GRINDER	530.886-010
Blowpitman	32	BLOW-PIT MAN	533.885-014
Carpenter	36	CARPENTER, MAINTENANCE	860.281-014
Chemist	37	CHEMIST, ANALYTICAL	022.081-014
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Grinderman	21	GRINDER MAN	530.782-014

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Grinder Operator	21	GRINDER MAN	530.782-014
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Helper	32	DIGESTER-OPERATOR HELPER	532.886-010
Helper	33	BLACK-ASH-BURNER OPERATOR	533.782-022
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Pipefitter	36	PIPEFITTER	862.381-042
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Plant Title	Page	D.O.T. Title[1]	D.O.T. Code[1]
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Wood Sorter	20		530.687-014*

*New job found in the industry since the publication of the Third Edition of the Dictionary of Occupational Titles.

[1]U.S. Department of Labor, Dictionary of Occupational Titles, Third Edition, Washington: U. S. Government Printing Office.